DOCUMENT RESUME

ED 401 299 TM 025 847

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TITLE Job Analysis of the Knowledge Important for Newly Licensed Music Teachers.
INSTITUTION Educational Testing Service, Princeton, N.J.
REPORT NO ETS-RR-96-9
PUB DATE Apr 96
NOTE 98p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Administrators; College Faculty; Higher Education; *Job Analysis; *Knowledge Base for Teaching; *Licensing Examinations (Professions); *Music Teachers; *Teacher Certification; Teacher Qualifications; Teachers; *Test Construction; Test Content
IDENTIFIERS Experts; *Praxis Series; Test Specifications

ABSTRACT

A job analysis was conducted to define the content domain important for newly licensed (certified) music teachers to perform their jobs competently. The results of the job analysis will be used to develop test specifications for the subject assessment in music of the Praxis Series: Professional Assessments for Beginning Teachers. An initial draft domain of knowledge statements was constructed with subject-matter expertise. The resultant draft, which had 6 content areas, was reviewed by 10 subject-matter experts and revised to contain 93 knowledge statements in the 6 areas. The revised draft was reviewed by an advisory panel of three classroom teachers and six college faculty. A final form was constructed that consisted of 126 knowledge statements in 5 areas. The revised domain was subjected to verification/refutation through a national survey of 843 teachers, 408 college faculty, and 102 school administrators. A cut-point of 2.50 was established to identify the core of important statements. After analysis, 28 of the 126 statements did not meet the criterion for inclusion, and 98 were verified as important enough to be the foundation for the development of test specifications. Seven appendixes list the experts, present the inventory as developed, contain cover letters and follow-ups, and give importance ratings for the various expert groups. (Contains 6 tables, 4 appendix tables, and 15 references.) (SLD)

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JOB ANALYSIS OF THE KNOWLEDGE IMPORTANT FOR NEWLY LICENSED MUSIC TEACHERS

Scott Wesley

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Princeton, New Jersey
April 1996

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Job Analysis of the Knowledge Important for Newly Licensed Music Teachers

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March 1996

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Acknowledgments

I would like to thank several individuals who provided assistance during this study. Denise Asfar of the School and Higher Education Programs of Educational Testing Service (ETS) did a wonderful job developing the initial draft of the Music content domain. She was also responsible for identifying and contacting external subject matter experts to review the draft content domain. Janet Palumbo-Lavery and Linda Tyler assisted in the revision of the initial draft of the content domain and in rewording the document following outside reviews. I would also like to thank the members of the External Review Panel and the Advisory Committee for their significant contributions to the study. My gratitude also extends to Richard Tannenbaum and Mike Rosenfeld of ETS for their useful feedback and Anne Reynolds, a former ETS colleague, for her development of a framework for content-specific pedagogy. Many thanks to Regina Mercadante and Cindy Hammell of ETS for assisting in the development of this report. I would like to acknowledge the following professional organizations for providing the mailing lists for the job analysis and supporting the study among their membership rosters.

American Choral Directors Association (ACDA)
American String Teachers Association (ASTA)
College Music Society (CMS)
Music Educators National Conference (MENC)
National Association of State Supervisors of Music (NASSM)
National Black Music Caucus (NBMC)
National Council of State Supervisors of Music (NCSSM)

Lastly, I want to thank the several hundred teachers, college faculty, and administrators who took time away from their busy schedules to complete and return the survey.

Executive Summary

A job analysis was conducted to define the content domain important for newly licensed (certified) music teachers to perform their jobs in a competent manner. The results of the job analysis will be used to develop test specifications for the subject assessment in music of the Praxis Series: Professional Assessments for Beginning Teachers™.

An initial draft domain of knowledge statements was constructed by Educational Testing Service (ETS) test development staff with subject-matter expertise in music and ETS research staff with expertise in job analysis methodology. In the process of developing the draft domain, ETS subject-matter experts reviewed previous National Teacher Examination (NTE) music test specifications, state licensure and certification requirements, and relevant professional literature. The resultant draft domain consisted of six major content areas and 84 knowledge statements. The six major content areas were: (1) Music History and Literature, (2) Composition/Theory, (3) Acoustical Theory, (4) Performance Media, (5) Performance, and (6) Content-Specific Pedagogy.

This draft domain was then reviewed by an External Review Panel of 10 subject-matter experts: five classroom teachers, four college faculty, and one state administrator. The panel reviewed the draft domain for the appropriateness of its overall structure and the appropriateness of the specific statements and their completeness and clarity. Revisions suggested by the panel, including additions and deletions of content areas and knowledge statements, were obtained via telephone interviews conducted by ETS research staff. Wording changes were made to the draft domain and some additional statements were included. The revised domain consisted of 93 statements.

This revised draft domain was then reviewed by an advisory committee of three classroom music teachers and six college faculty. This committee was charged with modifying the revised draft domain so that it accurately reflected what the members of the committee believed were the knowledge areas important for newly licensed (certified) music teachers. This modification process occurred during a three-day meeting held in Princeton, New Jersey. The committee made numerous changes to the job analysis inventory, including changes to the knowledge statements themselves and changes to the category headings and directions. The final form of the job analysis inventory comprises 126 knowledge statements grouped into five categories: (1) Music History and Literature, (2) Theory/Composition, (3) Performance Media, (4) Performance, and (5) Music Pedagogy.

This revised domain was then subjected to verification/refutation through a national survey of 843 teachers (approximately 17 per state and the District of Columbia), 408 college faculty (approximately 8 per state and D.C.), and 102 school administrators (approximately 2 per state and D.C.) for a total of 1,353 education professionals. In order to reach appropriate individuals, the mailing list was acquired from the membership rosters of several professional associations in music education. Names from the rosters were drawn at random in such a way as to satisfy the state participation requirements stated above.

The survey participants were asked to rate the statements in terms of their importance for newly licensed (certified) music teachers to perform their jobs in a competent manner. The 5-point rating scale ranged form 0 (of no importance) to 4 (very important). The purpose of the survey administration was to identify a core of knowledge statements that relatively large numbers of education professionals verified to be important to newly licensed (certified) music teachers. The latter objective is accomplished by analyzing the mean importance ratings provided by two groups of education professionals (i.e., teachers and college faculty) and by appropriate subgroups of respondents (i.e., sex, race/ethnicity, geographic

region, teaching experience). Statements that are judged to be important by **both** respondent groups and all subgroups define the core. The core becomes the primary database for the development of test specifications. The derivation of test specifications from those knowledge areas verified to be important by the surveyed education professionals provides a substantial evidential basis for the content validity and relevance of The Praxis II Subject Assessment in Music.

Two types of data analysis were conducted to support the development of content valid test specifications: (1) means were computed of the importance ratings for each knowledge statement for teachers and college faculty and for appropriate subgroups of respondents and (2) correlations of the profiles of these mean importance ratings were computed across the two groups of education professionals and subgroups of respondents.

A cut point of a mean importance rating of 2.50 (the midpoint between moderately important--scale value 2--and important--scale value 3) was established to identify the core of important statements. Statements that were judged by the education professionals and all subgroups of respondents to be 2.50 or higher comprised the core, and, therefore, were considered eligible for inclusion in the development of test specifications. However, because the survey participants were not involved in the development of the knowledge domain, they may lack certain insights that the Advisory Committee members have due to their high level of involvement in the definition of the domain. As a consequence, if the committee believes that a knowledge statement rated below 2.50 should be included in the specifications and the committee can provide *compelling written rationales*, those knowledge statements may be reinstated for inclusion in the test specifications.

The results of the mean analysis conducted by teachers and college faculty indicated that 22 of the 126 statements (17.5%) did not meet the criterion for inclusion. Teachers tended to give slightly lower ratings than college faculty. For example, 19 statements failed the inclusion criterion for teachers, while 16 statements did likewise for college faculty.

Means were also computed for demographic subgroups based on sex, race/ethnicity, geographic region, and teaching experience. In this analysis, 28 statements (22.2%) were rated below 2.50. All of the statements identified in the prior analysis of employment category were also identified in the subgroup analysis.

The computation of correlation coefficients to assess relative agreement of perceived importance revealed a high level of agreement. The coefficients for comparisons among the subgroups all exceeded .90. These findings indicate that there is substantial agreement in the relative importance given to the statements across a wide array of education professionals.

The 98 knowledge statements that were verified to be important by the respondents should be used as the foundation for the development of test specifications. Test specifications that are linked to the results of a job analysis provide support for the content validity of the derived assessment measures and may be considered as part of an initial step in ensuring fairness to subgroups of music teacher candidates. It is reasonable to assume that, due to testing constraints (e.g., time limits, ability to measure reliably some content), not all of the verified content may be included in the assessment measures. One source of information that may be used to guide decisions of what verified content to include in the assessment measure is the mean importance rating. Although a rank ordering of the content by mean importance rating is not implied, it is recommended that initial consideration be given to content that is well above the cut point and represents the appropriate breadth of content coverage.

Evidence was also provided in this study of the comprehensiveness of the content domain within the five major content areas. This information has implications for the adequacy of the content domain. If the domain was adequately defined then the categories should be judged to have been well covered by their accompanying statements. The results supported the adequacy of the defined content domain.

Finally, data were collected regarding the emphasis that should be given in the test to each of the five categories. This information will be used by the Advisory Committee in their decisions about the appropriate weighting of the test.

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Introduction

Purpose of the Study

The subject assessments for The Praxis Series: Professional Assessments for Beginning Teachers™ are designed to assess a prospective teacher's content knowledge of a specific subject area and subject-specific pedagogical knowledge. The focus of such tests is based on the premise that beginning teachers should demonstrate knowledge of the subjects they intend to teach (Grossman, Wilson, & Shulman, 1989), and demonstrate knowledge of teaching principles, strategies, and resources specific to those subjects (Grossman, 1989; McDiarmid, Ball, & Anderson, 1989; Reynolds, 1990). The Praxis Series can be used by state agencies as one of several criteria for initial teacher licensure or certification. Included as part of the subject assessments, is a licensure examination for music teachers. To identify the appropriate content domain of this examination and to support the content validity and content relevance of this examination, a job analysis was conducted of the knowledge important for newly licensed (beginning) music teachers. This report will describe the job analysis study. In particular, it will provide the rationale for conducting the job analysis, present the methods used to define job-related knowledge, describe the types of statistical analysis conducted, report the results of these analyses, and specify the implications for developing test specifications.

Standards for Educational and Psychological Testing

The *Standards for Educational and Psychological Testing* (1985) is a comprehensive technical guide that provides criteria for the evaluation of tests, testing practices, and the effects of test use. It was developed jointly by the American Psychological Association (APA), the American Educational Research Association (AERA), and the National Council on Measurement in Education (NCME). The guidelines presented in the *Standards* have, by professional consensus, come to define the necessary components of quality testing. As a consequence, a testing program that adheres to the *Standards* is more likely to be judged valid and defensible than one that does not.

There are two categories of criteria within the *Standards*, primary and secondary. Those classified as primary "should be met by all tests . . . unless a sound professional reason is available to show why it is not necessary, or technically feasible, to do so in a particular case. Test developers and users . . . are expected to be able to explain why any primary standards have not been met" (AERA/APA/NCME, 1985, p.2). One of the primary standards is that the content domain of a licensure or certification test should be defined in terms of the importance of the content for competent performance in an occupation. "Job analyses provide the primary basis for defining the content domain." (p.64).

The use of job analysis to define the content domain is a critical component in establishing the content validity of licensure and certification examinations. Content validity is the principle validation strategy used for these examinations. It refers to the extent to which the content covered by an examination overlaps with the important components (tasks, knowledge, skills, or abilities) of a job (Arvey & Faley, 1988). Demonstration of content validity is accomplished through the judgements of subject-matter experts. It is enhanced by the inclusion of large numbers of subject-matter experts who represent the diversity of the relevant areas of expertise (Ghiselli, Campbell, & Zedeck, 1981). The lack of a well-designed job analysis is frequently cited by the courts as a major cause of test invalidity.

Job Analysis

Job analysis refers to procedures designed to obtain descriptive information about the tasks performed on the job and/or the knowledge, skills, and abilities thought necessary to adequately perform those tasks (Gael, 1983). The specific type of job information collected by a job analysis is determined by the purpose for which the information will be used. For purposes of developing licensure and certification examinations, a job analysis should identify the important knowledge or abilities necessary to protect the public (AERA/APA/NCME, 1985). In addition, a well-designed job analysis should include the participation of various subject-matter experts (Mehrens, 1987); and the data collected should be representative of the diversity within the job. Diversity refers to regional or job context factors and to subject-matter-expert factors such as gender, race, ethnicity, and experience (Kuehn, Stallings, & Holland, 1990). The job analysis conducted for music teachers was designed to be consistent with the *Standards* and current professional practice.

Objectives of the Job Analysis Study

The objectives of this study were: to construct a comprehensive domain of knowledge that is important for newly licensed (certified) music teachers, and to obtain, using survey methodology, the independent judgements of a national sample of music education professionals (teachers, college faculty, and state administrators) to verify or refute the importance of the domain of knowledge. The verification/refutation component serves a critical role to ensure that the domain, in whole or in part, is judged to be relevant to the job of a newly licensed (certified) music teacher by a diversity of education professionals. The components of the domain that are verified will be used in the development of test specifications for the Praxis II Subject Assessment in Music.

Methods

The job analysis study described in this report involved a multimethod approach that included subject-matter experts and a national survey. In overview, groups of subject-matter experts first defined a knowledge domain important for newly licensed music teachers. This knowledge domain was then sent out to education professionals through a large-scale, national survey. The purpose of the survey administration was to obtain verification and/or refutation from large numbers of education professionals that the previous groups of subject-matter experts had defined a content domain of knowledge areas that are important for newly licensed music teachers. Through this process we can identify a core of important knowledge that is related to the job of the newly licensed music teacher. Thus, the survey functions as a "check and balance" on the judgments of the subject-matter experts and reduces the likelihood that unimportant knowledge areas will be included in the development of the test specifications. The use of a job analysis survey is also an efficient and cost-effective method of obtaining input from large numbers of subject-matter experts and enables ratings to be analyzed separately by relevant subgroups.

The survey participants were music teachers, administrators, and college faculty whose names were obtained from membership rosters of several professional associations. The participants were asked to rate the job analysis statements in terms of their *importance* for newly licensed/certified music teachers to perform their jobs in a competent manner. The specific steps in the job analysis process are described below.

Definition of the Knowledge Domain

Develop an initial draft knowledge domain. The first step in the process of conducting the job analysis was to construct a preliminary knowledge domain. The domain was constructed by Educational Testing Service (ETS) test development staff with subject-matter expertise in music and ETS research staff who have expertise in job analysis methodology. In the process of developing the draft, the ETS subject-matter experts reviewed state teaching licensure requirements, previous National Teacher Examination (NTE) music test specifications, current test items, and relevant professional literature.

The resultant draft domain consisted of six major content areas: (1) Music History and Literature, (2) Composition/Theory, (3) Acoustical Theory, (4) Performance Media, (5) Performance, and (6) Content-Specific Pedagogy. Within each category were several knowledge statements that attempted to map the important aspects of the category. In this draft, there were 84 statements classified within the six categories.

Evaluation of draft domain by External Review Panel. Consistent with a content validity framework, the job analysis study was designed to obtain input from many subject-matter experts at several critical points in the domain definition process. To this end, an External Review Panel of 10 music education professionals was formed to review the draft domain. This group consisted of five classroom teachers, four college faculty and one state administrator. Individuals were considered for membership through a process of peer recommendation. All of the review panelists have experience either teaching music or supervising teachers of music and they are prominent and active in professional associations and/or teacher licensure. In addition to their subject-matter expertise, the panel was formed so as to have representation by sex, ethnicity, and geographic location. Members of the panel are listed in Appendix A.

The panelists were instructed to review the draft and to make modifications they felt were necessary to adequately cover the important aspects of teaching music. They were further instructed that these modifications could include the addition of important knowledge statements, deletion of unimportant statements, elaboration of statements with relevant examples, and revision of statements into language that is clear and appropriate for individuals in music education. The panelists were interviewed via telephone by ETS research staff to obtain their suggested modifications.

Information from the interviews was compiled, discussed with ETS test development staff and subsequently, used to revise the draft. Wording changes were made to the draft and some additional statements were included. The revised draft consisted of 93 statements.

Advisory Committee meeting. The next step in the job analysis process was a meeting held January 12-14, 1990 in Princeton, New Jersey with an advisory committee of nine subject-matter specialists. The committee was charged with developing a final version of the job analysis inventory and with developing the specifications for the new test. Like the external review panelists, members of the advisory committee have a documented knowledge of the subject matter. The committee comprises three classroom teachers and six college faculty, and has representation by sex, ethnicity, and geographic location. Members of the committee are also listed in Appendix A.

The meeting was led jointly by ETS test development and research staff. Prior to the meeting, committee members were mailed a copy of the draft domain to review. They were informed of the purpose of the meeting and asked to come prepared to discuss their review. Because they will use the results obtained from the survey administration of the content domain, it is critical that committee members have a

clear understanding of each statement. The group interaction during the meeting fostered discussions that generated suggestions not made during the individual interviews with the External Review Panel. The committee members attempted to be inclusive (i.e., cover all important aspects of teaching the subject matter) rather than exclusive in defining the content domain.

The committee made numerous changes to the job analysis inventory, including changes to the knowledge statements themselves and changes to the category headings and directions in the interest of rendering the inventory more appropriate and comprehensive and its statements unambiguous. The final form of the job analysis inventory comprises 126 knowledge statements grouped into five categories; (1) Music History and Literature, (2) Theory/Composition, (3) Performance Media, (4) Performance, and (5) Music Pedagogy.

During the meeting the Advisory Committee also reviewed and approved the proposed rating scale for the inventory. The rating scale required respondents to make judgments regarding importance to the newly licensed teacher. The importance scale, which is shown below, is in compliance with professional standards (cf. AERA, APA, NCME, 1985).

> How important is it that a newly licensed (certified) Music teacher be able to perform this task in a competent manner?
>
> (0) Of no importance
> (1) Of little importance
> (2) Moderately important
> (3) Important
> (4) Very Important

The committee also reviewed and approved items concerning demographic and background information (e.g., sex, teaching experience, geographic location). Such items were included so that we can describe the composition of the survey respondents and conduct analyses of the survey responses by various subgroups of respondents (e.g., males and females).

Pilot test of the job analysis survey. After the meeting, a revised job analysis inventory was mailed to the committee members for final approval. Once approval was obtained, the inventory was pilot tested on a group of 10 classroom teachers and college faculty. The pilot participants were asked to review the survey for clarity of wording and instruction, ease of use, and comprehensiveness of content coverage. The pilot test indicated that no one had difficulty completing the inventory and that no additional changes were necessary.

Large-Scale Survey

Survey instrument. The finalized survey consisted of three parts. Part I included 126 knowledge statements categorized under the following five knowledge dimensions: Music History and Literature, Theory/Composition, Performance Media, Performance, and Music Pedagogy. Survey respondents were asked to rate the statements using the previously mentioned importance scale.

For each major knowledge dimension there was also a content coverage question in Part I. This question asked the survey participants to indicate how well the dimension was covered by its knowledge statements. Respondents made their judgements using a 5-point rating scale (1=Poorly, 2=Somewhat,

3=Adequately, 4=Well, 5=Very well). The participants also had an opportunity to identify and write in knowledge statements that they believed should be added to the domain.

Part II of the survey asked the participants to indicate the weight or emphasis that each of the major knowledge dimensions should receive on the assessment. This was accomplished by distributing 100 points across the five major dimensions. These point distributions were converted into percentages, representing the percent of items that the survey respondents believed should be devoted to each area.

Part III asked the survey participants for demographic and background information. As previously noted, these items are used to describe the respondents and to perform subgroup analyses. A copy of the final inventory is provided in Appendix B.

Survey participants. The sample for this study consisted of 843 teachers (approximately 17 per state and the District of Columbia), 408 college faculty (approximately 8 per state and the District of Columbia), and 102 school administrators (approximately 2 per state and the District of Columbia) For a total of 1,353 education professionals (approximately 26 per state and D.C.). In order to reach appropriate individuals, the mailing list was acquired from the membership rosters of several professional associations in music education. Names from the rosters were drawn at random in such a way as to satisfy the state participation requirements noted above.

Survey administration. The surveys were administered to the sample in May, 1990. Each survey was accompanied by a letter of invitation to participate and a postage-paid envelope for its return. A reminder postcard was mailed approximately one week after the survey mailing. The cover letter and the follow-up postcard are provided in Appendix C.

The purpose of the survey administration was to identify a core of knowledge statements that relatively large numbers of education professionals judged to be relevant (verified to be important) to newly licensed (certified) music teachers. The latter objective is accomplished by analyzing the mean importance ratings provided by the two groups of education professionals and by the appropriate subgroups of respondents. Knowledge statements that are judged to be important by **both** respondent groups and all subgroups define the core. The core becomes the primary database for the development of test specifications. The derivation of test specifications from those knowledge statements verified to be important by the surveyed music education professionals provides a substantial evidential basis for the content validity and relevance of the subject assessment in music.

Data Analysis

Two types of data analysis were conducted to support the development of content valid test specifications: (1) Means were computed of the importance ratings for each knowledge statement by the two groups of music education professionals and by the appropriate subgroups of respondents, and (2) correlations of the profiles of these mean importance ratings were computed across the two groups of professionals and the appropriate subgroups of respondents.

Means. The mean analysis is used to determine the level (absolute value) of importance attributed to each knowledge statement. Means were computed for teachers and college faculty and for subgroups of respondents (subgroups by gender, race/ethnicity, geographic region, and teaching experience). An analysis of importance ratings by geographic region is consistent with the recent legal emphasis on addressing regional job variability when job analyses are conducted for content domain specification

purposes (Kuehn et al., 1990). We used the regional categorizations established by the National Association of State Directors of Teacher Education and Certification (NASDTEC) in our analysis. Gender and race/ethnicity subgroups were included because they represent protected "classes" under Title VII of the Civil Rights Act of 1964. We used a dichotomous breakdown of teaching experience at the five-year point so that the judgments of less experienced teachers and more experienced teachers could each be represented. Only classroom teachers, not administrators or college faculty, were included in the analysis of teaching experience.

A respondent category was required to have at least 30 respondents to be included in the mean analysis (e.g., ≥ 30 college faculty, ≥ 30 females). This number of respondents provides some assurance that the sample mean is a reasonable estimate of the corresponding population mean (Walpole, 1974). Due to the minimum number requirement, data for administrators were not analyzed separately.

In addition, mean ratings were computed for the responses to the content coverage questions and the Recommendation for Test Content section of the job analysis survey. These analyses were computed for both teachers and college faculty.

Correlations. The correlational analysis was used in this study to determine the extent of agreement among teachers and college faculty and among the demographic subgroups of respondents on the relative importance of the knowledgr efers to the similarity of the pattern of
mean ratings generated by the different respondent groups. For example, the profile of 126 mean ratings for teachers is correlated with the profile of 126 mean ratings for faculty. If these two profiles are similar (the shapes of the profiles correspond), the value of the correlation coefficient will be close to 1.00.

Criterion for Interpretation of Mean Importance Ratings

Since the purpose of a job analysis is to ensure that only the most important knowledge statements are included in the development of test specifications, a criterion (cut point) for inclusion is needed. For the importance rating scale used in the present job analysis, the value of this criterion is 2.50 (midpoint between moderately important and important). This criterion is consistent with the intent of content validity, which is to measure only important knowledge with the assessment instrument. Therefore, knowledge statements that receive a mean importance rating of 2.50 or more may be considered eligible for inclusion in the development of test specifications; knowledge statements that receive a mean rating of less than 2.50 may not be considered for inclusion. This criterion has been used in similar studies (Rosenfeld & Tannenbaum, 1991; Wesley, 1993). Because survey participants were not involved in the development of the content domain, however, they may lack certain insights that the Advisory Committee members have due to their high level of involvement in the definition of the domain. Consequently, if the committee believes that a knowledge statement rated below 2.50 should be included in the specifications and the committee can provide *compelling written rationales*, those knowledge statements may be reinstated for inclusion in the test specifications.

Results

Survey Respondents

Response rate. Of the 1,353 inventories mailed, 14 were returned incomplete because of a variety of reasons (e.g., wrong address, individual was retired and declined to participate). Of the remaining 1,339,

552 (41.2%) were completed and returned. This is a typical rate of return for a voluntary survey of some length conducted through the mail.

Demographic Characteristics. Results of the analyses of the responses to the demographic questions in the inventory are summarized in Appendix D. The typical respondent was 35 or older (79.0%), white (85.9%), had at least a master's degree (68.8%), and had 16 or more years experience in teaching music (55.8%). Slightly more of the respondents were female than were male (50.4% to 47.5%). The respondents who taught tended to do so in grades 5 - 8 (43.8%), college (31.2%), 9-12 (29.9%), and 1-4 (24.1%). In general, it appears that the demographic composition of the survey respondents is representative of the teaching profession at large (cf. Feistritzer, 1986). In terms of geographic location, the survey respondents were reasonably well distributed across the four regions: Northeast -- 22.6%, Central -- 26.4%, South -- 24.5%, and Far West -- 24.3%.

Mean Importance Ratings

Education Professionals. Means and standard deviations were computed for all respondents, and for teachers and college faculty, separately. Due to their length, these data are provided in Appendix E.

Those knowledge statements rated less than 2.50 by either the teachers or college faculty are provided in Table 1. Of the 126 individual knowledge statements, only 22 (17.5%) did not meet the criterion for inclusion. This provides evidence that the iterative process undertaken to develop the survey was effective in identifying knowledge areas that are important for newly licensed music teachers. While there was general agreement, teachers tended to give slightly lower ratings than college faculty. For example, 19 statements failed the inclusion criterion for teachers, while 16 statements did likewise for college faculty.

Demographic Subgroups. Means were computed for demographic subgroups based on sex, race/ethnicity, geographic region, and teaching experience. These data are tabled in Appendix F.

Those knowledge statements rated less than 2.50 by any of the 10 demographic subgroups are provided in Table 2. In this analysis, 28 statements (22.2%) were rated below 2.50. All of the statements identified in the prior analysis of employment category were also identified in the subgroup analysis. *Thus, the two analyses together identified 28 of the 126 statements (22.2%) that did not meet the 2.50 criterion* Of the 28, 12 were in the Music Pedagogy category and 9 were in the Theory/Composition category.

Primary Teaching Area Subgroups. Means were computed by primary area of teaching responsibility (e.g., Choral, Band and Wind). This analysis was conducted at the request of the Advisory Committee members who believed that ratings for the knowledge statements would be influenced by this variable. These data are provided in Appendix G.

Correlations of the Profiles of Mean Importance Ratings

Education Professionals. Correlations were computed among arrays of means for the teachers and college faculty in the sample. The obtained correlation was .92, which indicates a substantial level of agreement across the two groups on the relative importance of the knowledge statements.

Demographic Subgroups. Correlations were computed among arrays of means for the selected subgroups of respondents (e.g., males and females). This is done as a way of evaluating agreement among

Table 1
Statements rated below 2.50 by Music Teachers and College Faculty

		Teachers N = 310	College Faculty N = 157
MUSIC HISTORY AND LITERATURE			
10	Performers (past and present)	2.48	2.26
11	History of performance media		2.39
12	Interrelationships among musical genres, periods, and styles	2.40	
THEORY/COMPOSITION			
30	Composing	2.08	2.24
33	Counterpoint	2.18	2.17
37	Properties of sound and principles of sound generation	2.36	
38	Physics of sound	2.04	2.03
39	Room acoustics		2.33
40	Anatomy of hearing	2.25	2.10
41	Sound characteristics of electronic instruments	1.99	2.15
42	Sound characteristics of acoustic instruments	2.29	2.31
44	Tuning systems (e.g., just, Pythagorean, equal-tempered)	1.98	1.69
PERFORMANCE MEDIA			
50	Electronic instruments	2.44	
PERFORMANCE			
65	Guitar skills	1.74	2.26
72	Improvisational techniques	2.49	
MUSIC PEDAGOGY			
95	Suzuki	2.33	
97	Dalcroze	2.39	
98	Education Through Music (ETM)		2.30
104	MIDI	2.45	
107	History of music education	2.30	2.31
119	Sociology of music	2.45	2.49
130	Instruction in art disciplines outside of music		2.41

Table 2
Statements rated below 2.50 by Demographic Subgroups

		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
MUSIC HISTORY AND LITERATURE											
10	Performers (past and present)		2.29		2.39	2.45	2.42	2.46	2.31		2.46
11	History of performance media		2.45		2.49		2.42		2.41		
12	Interrelationships among musical genres, periods, and styles	2.48					2.49		2.43	2.35	2.41
13	Interdisciplinary relationships in the fine arts		2.48					2.48		2.33	
THEORY/COMPOSITION											
30	Composing	2.16	2.12	2.44	2.12	2.24	2.03	2.20	2.08	2.07	2.07
33	Counterpoint	2.12	2.29		2.17	2.28	2.05	2.31	2.17	2.24	2.17
37	Properties of sound and principles of sound generation	2.33			2.40		2.19		2.48	2.30	2.37
38	Physics of sound	1.96	2.15	2.25	2.02	2.12	1.81	2.18	2.11	1.91	2.07
39	Room acoustics	2.49			2.47	2.39	2.43				
40	Anatomy of hearing	2.23	2.20		2.16	2.17	2.15	2.35	2.18	2.25	2.24
41	Sound characteristics of electronic instruments	1.92	2.25	2.28	2.06	2.22	1.91	2.06	2.16	1.93	2.00
42	Sound characteristics of acoustic instruments	2.10			2.28	2.35	2.15	2.37	2.42	2.34	2.28
44	Tuning systems (e.g., just, Pythagorean, equal-tempered)	1.82	2.00	2.00	1.90	1.75	1.79	2.14	1.94	2.02	1.98
PERFORMANCE MEDIA											
50	Electronic instruments						2.49			2.38	2.45
PERFORMANCE											
65	Guitar skills	2.14	1.73	2.02	1.92	2.19	1.74	1.84	2.02	1.78	1.73
72	Improvisational techniques						2.49	2.47			2.47

		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
MUSIC PEDAGOGY											
94	Kodály		2.48						2.49		
95	Suzuki		2.27		2.38	2.49	2.33	2.44	2.29		2.28
96	Orff		2.40								
97	Dalcroze		2.17		2.44			2.40	2.27	2.32	2.40
98	Education Through Music (ETM)		2.28		2.44		2.47	2.49	2.32		
99	Comprehensive Musicianship Program (CMP)								2.49		
104	MIDI									2.34	2.47
107	Sequencer	2.24	2.49		2.34		2.25	2.35	2.35	2.00	2.26
109	Compact discs									2.48	
117	History of music education	2.44	2.22		2.28	2.36	2.31	2.43	2.23	2.43	2.28
119	Sociology of music		2.36		2.43		2.38		2.46	2.36	2.48
130	Instruction in art disciplines outside of music		2.38		2.49		2.43		2.44	2.45	

subgroups. The correlations are provided in Table 3. Note that all values are above .90. This indicates a high level of agreement among subgroups and is consistent with findings in the job analysis literature (e.g., Schmitt and Cohen, 1989).

Table 3
Correlations of Mean Importance Ratings among Demographic Subgroups

	1	2	3	4
Sex				
1. Female (N=278)	1.00			
2. Male (N=262)	.90	1.00		
Racial/Ethnic Background				
1. People of Color (N=52)	1.00			
2. White (N=474)	.96	1.00		
Geographic Region				
1. Northeast (N=125)	1.00			
2. Central (N=146)	.97	1.00		
3. South (N=135)	.95	.97	1.00	
4. Far West (N=134)	.96	.97	.97	1.00
Teaching Experience (teachers only)				
1. 1-5 years (N=47)	1.00			
2. Greater than 5 years (N=262)	.97	1.00		

Primary Teaching Area Subgroups. Correlations were also computed among arrays of means for the primary teaching area variable. The correlations between these subgroups are provided in Table 4. While still high and statistically significant ($p<.05$), they are noticeably smaller (range .53 - .93) than the correlations for the employment and demographic subgroups. Thus, the Advisory Committee's belief that individuals in different teaching areas would give somewhat different importance ratings was supported.

Table 4
Correlations of Mean Importance Ratings among Primary Teaching Area Subgroups

	1	2	3	4	5	6	7
1. Choral (N=81)	1.00						
2. Band and Wind (N=136)	.87	1.00					
3. Orchestra and String (N=52)	.85	.70	1.00				
4. Elementary General/Choral (N=146)	.83	.69	.91	1.00			
5. Secondary General Music (N=30)	.82	.79	.53	.56	1.00		
6. Multiple Areas (N=32)	.85	.85	.71	.68	.79	1.00	
7. No Response (N=75)	.93	.85	.80	.74	.78	.88	1.00

Mean Ratings of Content Coverage

The survey participants were asked to indicate, using a 5-point rating scale, how well the statements within each of the five major knowledge categories covered the important aspects of the category. Responses to this provide an indication of the adequacy (comprehensiveness) of the content domain. The scale values were 1 = Poorly, 2 = Somewhat, 3 = Adequately, 4 = Well, 5 = Very well. The mean ratings for teachers, college faculty, and all respondents are provided in Table 5. The ratings exceed 4.0 on all cases except Performance Media for college faculty . This supports the notion that the major knowledge categories were well covered and that the overall content domain was comprehensive.

Table 5
Mean Ratings of Content Coverage

Knowledge Category	Teachers (N=310)	College Faculty (N=157)	Total Sample (N=552)
Music History and Literature	4.07	4.04	4.05
Theory/Composition	4.16	4.13	4.14
Performance Media	4.09	3.97	4.05
Performance	4.33	4.15	4.25
Music Pedagogy	4.31	4.25	4.28

Mean Percentage Weights for Test Content Emphasis: Recommendations for Test Content

Part III of the survey, Recommendations for Test Content, asks participants to indicate how many test questions (out of 100) should be included from each of the knowledge categories. This information may be used by the Advisory Committee members to inform their decisions about the emphasis each knowledge category should receive in the test specifications. The mean weights for the teachers, college faculty and all respondents are presented in Table 6. Music Pedagogy received the highest average ratings, followed by Performance, Theory/Composition, Performance Media, and Music History and Literature.

Table 6
Mean Percentage Weights for Test Content Emphasis

Knowledge Category	Teachers (N=310)	College Faculty (N=157)	Total Sample (N=552)
Music History and Literature	16.34	16.89	16.72
Theory/Composition	18.77	18.05	18.34
Performance Media	18.41	16.38	17.56
Performance	20.35	19.66	20.27
Music Pedagogy	26.13	29.02	27.12

Summary and Conclusions

A job analysis was conducted to define a knowledge domain important for newly licensed (certified) music teachers to perform their jobs in a competent manner. An initial draft domain of important knowledge statements was constructed by ETS Test Development staff with expertise in music and ETS Research staff with expertise in job analysis. This draft domain was reviewed by an External Review Panel of subject-matter experts and revised accordingly. The revised draft was then reviewed, modified, and approved by an external Advisory/Test Development Committee. The revised knowledge domain was then subjected to verification/refutation through the use of a national survey of music teachers, teacher educators, and state administrators. The survey participants were asked to rate specific knowledge statements of the domain using a 5-point importance scale. A cut point of 2.50 (midpoint between moderately important and important) was established to designate knowledge statements as eligible (≥ 2.50) or ineligible (<2.50) for inclusion in the development of test specifications.

The results of the mean analysis conducted by teachers and college faculty indicated that 22 of 126 knowledge statements did not meet the criterion for inclusion. This represents 17.5% of the content domain. When the same analysis was conducted for demographic subgroups, very similar results were obtained (i.e., 28 statements yielded mean ratings below 2.50). All of the statements identified in the prior analysis of employment category were also identified in the subgroup analysis. Thus, the data analyses yielded only 28 statements (22.2%) that did not meet the 2.50 criterion for inclusion. This supports the premise that the iterative process undertaken to develop the survey and the use of subject-matter experts during the process were effective in identifying knowledge areas that are important for newly licensed music teachers.

The 98 knowledge statements that were verified to be important should be used as the foundation for the development of test specifications. Test specifications that are linked to the results of a job analysis provide support for the content validity of the derived assessment measures and may be considered as part

of an initial step in ensuring fairness. It is reasonable to assume that due to testing and psychometric constraints (e.g., time limits, ability to measure reliably some content) not all of the verified content may be included in the new assessment measure. One source of information that may be used to guide decisions of what verified content to include is the mean importance rating. Although a rank ordering of the content by mean importance rating is not implied, it is recommended that initial consideration be given to content that is well above the criterion and represents the appropriate breadth of content coverage as stipulated in the test specifications.

The computation of correlation coefficients to assess relative agreement in terms of perceived importance of the knowledge statements revealed a very high level of agreement. All coefficients exceeded .90 for the employment and demographic subgroups. These findings indicate that there is substantial agreement in the importance ratings given across a wide array of education professionals.

Evidence was also provided in this study of the comprehensiveness of the content domain within each of the five major knowledge categories. The results indicated that the survey respondents thought the categories were reasonably well covered by their statements.

Finally, data were collected in the Recommendations for Test Content section of the survey regarding the test emphasis that should be given to each of the five categories. This information will be used by the Advisory Committee in their decisions about the appropriate weighting of the test.

In summary, this study took a multimethod approach to identify a content domain that is related to the job of the newly licensed music teacher. The job analysis process allowed for input from many practicing professionals in music education. The results of the study will be used to develop specifications for the music test that will be included as part of the subject assessments of The Praxis Series: Professional Assessments for Beginning Teachers™.

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Appendix A

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Appendix B

Job Analysis Inventory

JOB ANALYSIS INVENTORY

FOR MUSIC TEACHERS

Educational Testing Service
Princeton, New Jersey

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INTRODUCTION

The educators who constructed this questionnaire recognize that there is diversity in music education such that the job of a music teacher may vary from one setting to another. For example, the job of the orchestra and string teacher is different than the job of the elementary general/choral music teacher. The responsibilities of your job may influence the way you respond to this questionnaire. Furthermore, we will be categorizing and analyzing the data from the respondents according to their primary area of teaching responsibility. Therefore, you should indicate your primary area of teaching responsibility below. If you are a teacher, circle the number that represents your primary area. If you either educate prospective teachers or supervise beginning teachers, circle the number that represents their primary area.

Primary Area of Teaching Responsibility
Please circle only one response.

1. Choral (Grades 7 - 12)
2. Band and Wind (Grades 4 - 12)
3. Orchestra and String (Grades 4 - 12)
4. Elementary General/Choral Music (Grades K - 6)
5. Secondary General Music (theory, literature, appreciation, keyboard; Grades 7 - 12)

Think of this area of teaching responsibility as you complete the questionnaire. Respond to each statement based on what you believe a newly licensed teacher in that area should know and be able to do.

PART I - KNOWLEDGE AND SKILL AREAS

This section asks you to react to a list of knowledge and skill areas and to rate each with respect to its importance for a newly licensed (certified) music teacher. On the following pages you will find five broad knowledge and skill categories:

A. Music History and Literature
B. Theory/Composition
C. Performance Media
D. Performance
E. Music Pedagogy

Beneath each category there are specific knowledge and skill statements. Please make your judgments about each statement using the following scale:

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

To familiarize yourself with the categories and statements, you may wish to glance through Part I before making your rating judgments.

Following each category is a question concerning how well you think the important aspects of the category are covered by the statements in the inventory. On the lines provided, note any important areas that you feel are not covered.

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

A. MUSIC HISTORY AND LITERATURE *(Middle Ages to the present)*	IMPORTANCE
1. Chronology	0 1 2 3 4 NA
2. Genres (e.g., sonata, symphony, opera)	0 1 2 3 4 NA
3. Periods (e.g., Medieval, Renaissance, Classical, Romantic, 20th century)	0 1 2 3 4 NA
4. World music (i.e., music from various cultures)	0 1 2 3 4 NA
5. Jazz	0 1 2 3 4 NA
6. American popular genres (e.g., folk, rock, gospel, rhythm & blues, country, musical theater, commercial music)	0 1 2 3 4 NA
7. Style characteristics (melody, rhythm, harmony, form, texture, dynamics, timbre)	0 1 2 3 4 NA
8. Literature/repertoire	0 1 2 3 4 NA
9. Composers (life and works)	0 1 2 3 4 NA
10. Performers (past and present)	0 1 2 3 4 NA
11. History of performance media (e.g., instruments, electronic media, voices)	0 1 2 3 4 NA
12. Interrelationships among musical genres, periods, and styles (e.g., Prokofiev's Classical Symphony)	0 1 2 3 4 NA
13. Interdisciplinary relationships in the fine arts (e.g., impressionism in music and art)	0 1 2 3 4 NA
14. Other interdisciplinary relationships (e.g., impact of historical events on music)	0 1 2 3 4 NA
15. Sources of information on history and literature (e.g., the New Grove's Dictionary)	0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

A. MUSIC HISTORY AND LITERATURE (cont.)

(Middle Ages to the present)

16. How well do the statements in section A cover the important aspects of MUSIC HISTORY AND LITERATURE?

1	2	3	4	5
Very Poorly	Poorly	Adequately	Well	Very Well

What important aspects, if any, are not covered?

_____

_____

B. THEORY/COMPOSITION

(includes basic musicianship)

		IMPORTANCE
17.	Harmony	0 1 2 3 4 NA
18.	Sight singing (solfege)	0 1 2 3 4 NA
19.	Sight reading	0 1 2 3 4 NA
20.	Part writing	0 1 2 3 4 NA
21.	Melodic dictation	0 1 2 3 4 NA
22.	Harmonic dictation	0 1 2 3 4 NA
23.	Rhythmic dictation	0 1 2 3 4 NA
24.	Tonality/atonality	0 1 2 3 4 NA
25.	Scale types and modes	0 1 2 3 4 NA
26.	Texture	0 1 2 3 4 NA
27.	Orchestration	0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

B. THEORY/COMPOSITION (cont.) *(includes basic musicianship)*	IMPORTANCE
28. Improvising	0 1 2 3 4 NA
29. Arranging	0 1 2 3 4 NA
30. Composing	0 1 2 3 4 NA
31. Keyboard application	0 1 2 3 4 NA
32. Form and analysis	0 1 2 3 4 NA
33. Counterpoint	0 1 2 3 4 NA
34. Score analysis	0 1 2 3 4 NA
35. Notation systems (e.g., traditional Western, 20th century)	0 1 2 3 4 NA
36. Expressive elements (e.g., dynamics, articulation, tempo, timbre)	0 1 2 3 4 NA
37. Properties of sound and principles of sound generation (e.g., frequency, amplitude, sound sources)	0 1 2 3 4 NA
38. Physics of sound (velocity, reflection, refraction, beats, harmonics, pure and complex tones, etc.)	0 1 2 3 4 NA
39. Room acoustics	0 1 2 3 4 NA
40. Anatomy of hearing	0 1 2 3 4 NA
41. Sound characteristics of electronic instruments (e.g., partials, attack, envelope, vibrato)	0 1 2 3 4 NA
42. Sound characteristics of acoustic instruments (e.g., partials, attack, envelope, vibrato)	0 1 2 3 4 NA
43. Perception of musical sounds (e.g., pitch, loudness, consonance and dissonance, tone quality)	0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

B. THEORY/COMPOSITION (cont.) — **IMPORTANCE**
(includes basic musicianship)

44. Tuning systems (e.g., just, Pythagorean, equal-tempered) ..... 0 1 2 3 4 NA

45. How well do the statements in section B cover the important aspects of THEORY/COMPOSITION?

1	2	3	4	5
Very Poorly	Poorly	Adequately	Well	Very Well

What important aspects, if any, are not covered?

_____

_____

C. PERFORMANCE MEDIA — **IMPORTANCE**

46. Proper fingerings, positions, bowings, embouchure, rudiments, breathing, etc. ..... 0 1 2 3 4 NA

47. Proper maintenance for instruments ..... 0 1 2 3 4 NA

48. Mechanical action of instruments ..... 0 1 2 3 4 NA

49. Instrumentation of standard instrumental ensembles ..... 0 1 2 3 4 NA

50. Electronic instruments ..... 0 1 2 3 4 NA

51. Voicings of standard choral ensembles ..... 0 1 2 3 4 NA

52. Vocal registers ..... 0 1 2 3 4 NA

53. Proper breathing and techniques for vocal production ..... 0 1 2 3 4 NA

54. Anatomy of vocal production ..... 0 1 2 3 4 NA

55. Vocal development: changes in the adolescent voice (male and female) ..... 0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

C. PERFORMANCE MEDIA (cont.) — **IMPORTANCE**

56. The unchanged voice ..... 0 1 2 3 4 NA

57. How well do the statements in section C cover the important aspects of PERFORMANCE MEDIA?

1	2	3	4	5
Very Poorly	Poorly	Adequately	Well	Very Well

What important aspects, if any, are not covered?

_____

_____

D. PERFORMANCE — **IMPORTANCE**

58. Demonstrate competent musicianship by performing the standard repertoire on one's principal instrument or voice ..... 0 1 2 3 4 NA

59. Demonstrate a competent level of performance on various secondary instruments or voice ..... 0 1 2 3 4 NA

60. Perform all major, minor, and chromatic scales and arpeggios on an instrument ..... 0 1 2 3 4 NA

61. Sing major, minor, and chromatic scales and arpeggios ..... 0 1 2 3 4 NA

62. Conducting ..... 0 1 2 3 4 NA

63. Score reading ..... 0 1 2 3 4 NA

64. Keyboard skills ..... 0 1 2 3 4 NA

65. Guitar skills ..... 0 1 2 3 4 NA

66. Instrumental warm-ups and tuning ..... 0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

D. PERFORMANCE (cont.)	IMPORTANCE
67. Vocal/choral warm-ups	0 1 2 3 4 NA
68. Harmonize a melody on an instrument (e.g., at keyboard, on fretted instrument)	0 1 2 3 4 NA
69. Harmonize a melody vocally	0 1 2 3 4 NA
70. Transpose a melody to a new key on an instrument	0 1 2 3 4 NA
71. Appropriate stylistic interpretation	0 1 2 3 4 NA
72. Improvisational techniques	0 1 2 3 4 NA
73. Critical listening skills, including error detection	0 1 2 3 4 NA
74. Aural identification of instruments	0 1 2 3 4 NA
75. Aural identification of vocal types	0 1 2 3 4 NA
76. Oral communication with an audience	0 1 2 3 4 NA
77. Other communication with an audience (e.g., program notes)	0 1 2 3 4 NA
78. Concert etiquette (e.g., when to applaud)	0 1 2 3 4 NA

79. How well do the statements in section D cover the important aspects of PERFORMANCE?

1	2	3	4	5
Very Poorly	Poorly	Adequately	Well	Very Well

What important aspects, if any, are not covered?

_____

_____

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

E. MUSIC PEDAGOGY

In addition to content, music teachers need to know pedagogy specific to music. This includes knowledge of students, curriculum, teaching strategies, and resources.

		IMPORTANCE
80.	Reasons for including music in the curriculum	0 1 2 3 4 NA
81.	Reasons for teaching a particular skill or concept in music	0 1 2 3 4 NA
82.	A scope, sequence, and rationale for concepts and skills taught at a given level	0 1 2 3 4 NA
83.	Establishing outcomes for music instruction	0 1 2 3 4 NA
84.	Prerequisite knowledge, skills, and psychomotor abilities that students must have before being taught a particular skill or concept in music	0 1 2 3 4 NA
85.	Ability to detect errors in students' musical performance	0 1 2 3 4 NA
86.	Ability to correct errors in students' musical performance	0 1 2 3 4 NA
87.	Awareness of students' motivations for studying music	0 1 2 3 4 NA
88.	Strategies for enhancing students' motivations for studying music	0 1 2 3 4 NA
89.	Developing creativity and aesthetic expression through music	0 1 2 3 4 NA

Instructional strategies for use in the following settings:

90.	Classroom	0 1 2 3 4 NA
91.	Large ensemble	0 1 2 3 4 NA
92.	Small ensemble/sectional	0 1 2 3 4 NA
93.	Individualized instruction	0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

E. MUSIC PEDAGOGY (cont.)	IMPORTANCE
Pedagogical methods/approaches, such as:	
94. Kodály	0 1 2 3 4 NA
95. Suzuki	0 1 2 3 4 NA
96. Orff	0 1 2 3 4 NA
97. Dalcroze	0 1 2 3 4 NA
98. Education Through Music (ETM)	0 1 2 3 4 NA
99. Comprehensive Musicianship Program (CMP)	0 1 2 3 4 NA
100. Eclectic (e.g., a combination of Kodály, Orff, Dalcroze)	0 1 2 3 4 NA
101. Appropriate forms of representation (e.g., analogies, examples, symbols, drawings) for music that help make music understandable and interesting to a particular group of students	0 1 2 3 4 NA
102. Identification, evaluation, and use of curricular materials and resources for music in ways appropriate for a particular group of students and a particular concept	0 1 2 3 4 NA
103. Selection of appropriate music, including arrangements, for performance by a particular group of students	0 1 2 3 4 NA
Use of Technology:	
104. MIDI	0 1 2 3 4 NA
105. Computer	0 1 2 3 4 NA
106. Synthesizer	0 1 2 3 4 NA
107. Sequencer	0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

E. MUSIC PEDAGOGY (cont.) — **IMPORTANCE**

Use of Equipment:

108.	Stereo systems	0 1 2 3 4 NA
109.	Compact discs	0 1 2 3 4 NA
110.	Interactive video	0 1 2 3 4 NA
111.	Electronic recording devices	0 1 2 3 4 NA
112.	Sound systems	0 1 2 3 4 NA
113.	Mainstreaming in the music setting	0 1 2 3 4 NA
114.	Evaluation strategies (e.g., observations, listening, performance tests, questioning techniques) appropriate to assess student progress in music	0 1 2 3 4 NA
115.	Reporting students' musical progress	0 1 2 3 4 NA
116.	Evaluation techniques to diagnose strengths and weaknesses in the school's music curriculum	0 1 2 3 4 NA
117.	History of music education	0 1 2 3 4 NA
118.	Philosophy of music education	0 1 2 3 4 NA
119.	Sociology of music	0 1 2 3 4 NA
120.	Psychology of music	0 1 2 3 4 NA
121.	The impact of learning theories on music education	0 1 2 3 4 NA
122.	Musical growth and development	0 1 2 3 4 NA
123.	Accommodating diverse learning styles in music instruction	0 1 2 3 4 NA

IMPORTANCE: How important is this knowledge or skill for newly licensed (certified) music teachers if they are to perform the job in a competent manner?

0 Of no importance
1 Of little importance
2 Moderately important
3 Important
4 Very important

NA Not applicable to primary area of teaching responsibility

Circle your response using the scale adjacent to each statement.

E. MUSIC PEDAGOGY (cont.)	IMPORTANCE
124. Trends in music education	0 1 2 3 4 NA
125. Professional literature in music education (e.g., books, journals, reference works)	0 1 2 3 4 NA
126. Professional and student organizations for music educators	0 1 2 3 4 NA
127. Professional ethics specific to music (e.g., copyright laws)	0 1 2 3 4 NA
128. External influences on the music curriculum (e.g., boosters, advocacy groups)	0 1 2 3 4 NA
129. Career opportunities in music (e.g., performance, teaching, business, technical)	0 1 2 3 4 NA
130. Instruction in art disciplines outside of music	0 1 2 3 4 NA

131. How well do the statements in section E cover the important aspects of MUSIC PEDAGOGY?

1	2	3	4	5
Very Poorly	Poorly	Adequately	Well	Very Well

What important aspects, if any, are not covered?

_____

_____

PART II - RECOMMENDATIONS FOR TEST CONTENT

Here are the five knowledge and skill categories covered in the first section of this inventory. If a licensing examination for Music teachers contained 100 questions, how many questions should be included from each category? If you feel a category should not be included in the exam, put 0 in the space provided. Make sure your responses total 100.

CATEGORIES	NUMBER OF TEST QUESTIONS (out of 100)
132. MUSIC HISTORY AND LITERATURE	_____
133. THEORY/COMPOSITION	_____
134. PERFORMANCE MEDIA	_____
135. PERFORMANCE	_____
136. MUSIC PEDAGOGY	_____
TOTAL	100

PART III - BACKGROUND INFORMATION

The information that you provide in this section is completely confidential and will be used for research purposes only. Please answer the questions by circling the number that most closely describes you or your professional activities. Unless otherwise indicated, please circle only one response for each question.

137. Where do you work?

1. Alabama
2. Alaska
3. Arizona
4. Arkansas
5. California
6. Colorado
7. Connecticut
8. Delaware
9. District of Columbia
10. Florida
11. Georgia
12. Hawaii
13. Idaho
14. Illinois
15. Indiana
16. Iowa
17. Kansas
18. Kentucky
19. Louisiana
20. Maine
21. Maryland
22. Massachusetts
23. Michigan
24. Minnesota
25. Mississippi
26. Missouri
27. Montana
28. Nebraska
29. Nevada
30. New Hampshire
31. New Jersey
32. New Mexico
33. New York
34. North Carolina
35. North Dakota
36. Ohio
37. Oklahoma
38. Oregon
39. Pennsylvania
40. Puerto Rico
41. Rhode Island
42. South Carolina
43. South Dakota
44. Tennessee
45. Texas
46. Utah
47. Vermont
48. Virginia
49. Washington
50. West Virginia
51. Wisconsin
52. Wyoming

138. What is your age?

1. Under 25
2. 25-34
3. 35-44
4. 45-54
5. 55-64
6. Over 64

139. What is your sex?

1. Female
2. Male

140. How do you describe yourself?

1. American Indian, Inuit, or Aleut
2. Asian, Asian American, Hawaiian Native, or Pacific Islander
3. Black or African American
4. Mexican American or Chicano
5. Puerto Rican
6. Latin American, South American, Central American, or other Hispanic
7. White
8. Other

141. Which of the following best describes your highest educational attainment?

1. Less than a bachelor's
2. Bachelor's
3. Bachelor's + additional credits
4. Master's
5. Master's + additional credits
6. Doctorate

142. Which of the following best describes your current employment status?

1. Temporary substitute (assigned on a daily basis)
2. Permanent substitute (assigned on a longer term basis)
3. Regular teacher (not a substitute)
4. Principal or assistant principal
5. School administrator
6. Curriculum supervisor
7. State administrator
8. College faculty
9. Other (please specify)_____

143. How many years have you taught music?

1. Less than a year
2. 1 - 2 years
3. 3 - 5 years
4. 6 - 10 years
5. 11 - 15 years
6. 16 - 20 years
7. 21 or more years
8. Never taught music

144. What grade level(s) are you currently teaching? (Circle all that apply)

1. Preschool/kindergarten
2. Grades 1-4
3. Grades 5-8
4. Grades 9-12
5. College
6. Do not currently teach--Administrator/Supervisor
7. Do not currently teach--Retired
8. Other (please specify)_____

145. Circle the following professional organizations to which you belong.

1. American Choral Directors Association
2. American School Band Directors Association
3. American String Teachers Association
4. College Band Directors National Association
5. College Music Society
6. Music Educators National Conference
7. Music Teachers National Association
8. National Band Association
9. National Black Music Caucus
10. Other (please specify)_____

Thank you for completing this questionnaire.
Please return it within two weeks using the enclosed envelope.

Appendix C

Cover Letters and Follow-Up Post Card

Cover Letter to Initial Sample

May 1990

Dear Colleague:

You are invited to participate in a project that should be of importance to teachers, school administrators, and other professionals in the field of music education. Educational Testing Service (ETS) is in the process of developing a new generation of assessment measures for the purpose of licensing teachers. One type of assessment will measure the prospective teacher's subject-matter knowledge and will likely be administered upon completion of the undergraduate teacher education program. Included in this type is a new version of the NTE Music Education exam (a national examination for teachers). This test will differ from the current exam in content and design (e.g., it will not be limited to multiple-choice questions). Your help is needed in the development of this test.

As part of the test development process, a group of music educators and administrators is working as an advisory committee to ETS (see attached list). The committee has identified potentially important knowledge and skill areas in music education. The enclosed questionnaire was constructed in order to obtain your judgments on the importance of these areas for newly licensed (certified) music teachers. Data from this questionnaire will guide the development of the new test.

The questionnaire is being mailed to a sampling of individuals who have been identified with the cooperation of several professional organizations, such as the Music Educators National Conference (MENC) and the College Music Society (CMS). The usefulness of this study is dependent upon the number of individuals who return completed questionnaires. A preliminary study has indicated that the questionnaire requires less than 30 minutes to complete.

You will notice that the inventory asks for some background information about you; this is solely for purposes of describing respondents. Your answers will be treated in strict confidence.

The results of this study will be widely disseminated and have implications for the preparation of future music teachers. Please complete and return your questionnaire. Your participation will benefit the music education profession and is appreciated by ETS and the advisory committee.

Sincerely,

Scott Wesley, Ph.D.
Associate Research Scientist

Att.
Enc.

List of Advisory Committee Members
Music Education

Adrienne Brown
Instrumental Music Specialist
Irvington Elementary School
Portland, OR

Irma Collins
Professor of Music
Murray State University
Murray, KY

Carole Delaney
Professor of Music and Coordinator
of Music Education
California State University
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Carolynn Lindeman
Professor of Music
San Francisco State University
San Francisco, CA

Harry Mamlin
Performing Arts Specialist
Charlotte-Mecklenburg Schools
Charlotte, NC

Clair Neamand
Vocal Music Instructor
Parkland Senior High School
Orefield, PA

Ricardo D. Trimillos
Professor of Ethnomusicology
University of Hawaii at Manoa
Honolulu, HI

Cover Letter to Supplemental Sample

August 1990

Dear Colleague:

You are invited to participate in a project that should be of importance to teachers, school administrators, and other professionals in the field of music education. Educational Testing Service (ETS) is in the process of developing a new generation of assessment measures for the purpose of licensing teachers. One type of assessment will measure the prospective teacher's subject-matter knowledge and will likely be administered upon completion of the undergraduate teacher education program. Included in this type is a new version of the NTE Music Education exam (a national examination for teachers). This test will differ from the current exam in content and design (e.g., it will not be limited to multiple-choice questions). Your help is needed in the development of this test.

As part of the test development process, a group of music educators and administrators is working as an advisory committee to ETS (see attached list). The committee has identified potentially important knowledge and skill areas in music education. The enclosed questionnaire was constructed in order to obtain your judgments on the importance of these areas for newly licensed (certified) music teachers. Data from this questionnaire will guide the development of the new test.

The questionnaire is being mailed to a sampling of individuals who have been identified with the cooperation of several professional organizations, such as the Music Educators National Conference (MENC) and the College Music Society (CMS). The usefulness of this study is dependent upon the number of individuals who return completed questionnaires. A preliminary study has indicated that the questionnaire requires less than 30 minutes to complete.

You will notice that the inventory asks for some background information about you; this is solely for purposes of describing respondents. Your answers will be treated in strict confidence.

The results of this study will be widely disseminated and have implications for the preparation of future music teachers. Please complete and return your questionnaire. Your participation will benefit the music education profession and is appreciated by ETS and the advisory committee.

Sincerely,

Scott Wesley, Ph.D.
Associate Research Scientist

Att.
Enc.

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Parkland Senior High School
Orefield, PA

Ricardo D. Trimillos
Professor of Ethnomusicology
University of Hawaii at Manoa
Honolulu, HI

Follow-Up Post Card

JOB ANALYSIS INVENTORY
FOR MUSIC TEACHERS

Dear Colleague:

An inventory was recently sent to you to obtain your opinions of what a newly licensed music teacher should know and be able to do. If you have not already done so, please complete the inventory and return it in the postage-paid envelope to:

Educational Testing Service
Mail Stop 11-P
Princeton, NJ 08541

If you have already returned the inventory, please accept my thanks for your help in this important project.

Sincerely,

Scott Wesley, Ph.D.
Associate Research Scientist

Appendix D

Demographic Distributions

	Overall Sample (N = 552)	
	Number	Percent
PRIMARY TEACHING RESPONSIBILITY AREA		
Choral (Grades 7-12)	81	14.7
Band and Wind (Grades 4 - 12)	136	24.6
Orchestra and String (Grades 4 - 12)	52	9.4
Elementary General/Choral Music (Grades K - 6)	146	26.4
Secondary General Music (theory, literature appreciation, keyboard; Grades 7 - 12)	30	5.4
Multiple Response (i.e., more than one area)	32	5.8
No response	75	13.6
AGE (years)		
Under 25	11	2.0
25-34	94	17.0
35-44	204	37.0
45-54	137	24.8
55-64	82	14.9
65 and over	13	2.4
No response	11	2.0
SEX		
Female	278	50.4
Male	262	47.5
No response	12	2.2

	Overall Sample (N = 552)	
	Number	Percent
RACE/ETHNICITY		
American Indian or Alaskan Native	5	0.9
Asian, Asian American, Hawaiian Native, or Pacific Islander	8	1.4
Black or African American	35	6.3
Hispanic	2	0.4
White	474	85.9
Other	2	0.4
No response	26	4.7
HIGHEST EDUCATIONAL ATTAINMENT		
Less than Bachelor's	0	0.0
Bachelor's	15	2.7
Bachelor's + Credits	134	24.3
Master's	47	8.5
Master's + Credits	188	34.1
Doctorate	145	26.3
No response	23	4.2
CURRENT EMPLOYMENT STATUS		
Temporary Substitute	2	0.4
Permanent Substitute	1	0.2
Regular Teacher (not a substitute)	309	56.0
Principal or Assistant Principal	0	0.0
School Administrator	0	0.0
Curricular Supervisor	4	0.7
State Administrator	20	3.6
College or University Faculty	157	28.4
Other	25	4.5
No response	34	6.2

	Overall Sample (N = 552)	
	Number	Percent
TEACHING EXPERIENCE		
Less than 1 year	5	0.9
1-2 years	14	2.5
3-5 years	34	6.2
6-10 years	69	12.5
11-15 years	97	17.6
16-20 years	103	18.7
21 or more years	205	37.1
Never taught music	1	0.2
No response	24	4.3
GRADE LEVELS CURRENTLY TEACHING [1]		
Preschool/Kindergarten	73	13.2
Grades 1 - 4	133	24.1
Grades 5 - 8	242	43.8
Grades 9 - 12	165	29.9
College	172	31.2
Do Not Teach (supervisor/administrator)	28	5.1
Do Not Teach (retired)	7	1.3
Other	40	7.2
PROFESSIONAL ORGANIZATIONS [1]		
American Choral Directors Association (ACDA)	116	21.0
American School Band Directors Association (ASBDA)	24	4.3
American String Teachers Association (ASTA)	64	11.6
College Band Directors National Association (CBDNA)	19	3.4
College Music Society (CMS)	78	14.1
Music Educators National Conference (MENC)	488	88.4
Music Teachers National Association (MTNA)	41	7.4
National Band Association (NBA)	36	6.5
National Black Music Caucus (NBMC)	24	4.3
Other	240	43.5

[1] Multiple responses were allowed. Hence, the total will not add up to 552.

	Overall Sample (N = 552)	
	Number	Percent
GEOGRAPHIC REGION		
Northeast	125	22.6
Central	146	26.4
South	135	24.5
Far West	134	24.3
No response	12	2.2

Appendix E

Importance Ratings for Teachers and College Faculty

	All Respondents N = 552		Teachers N = 310		College Faculty N = 157	
	Mean	SD	Mean	SD	Mean	SD
MUSIC HISTORY AND LITERATURE						
1 Chronology	2.79	0.90	2.64	0.91	2.99	0.77
2 Genres (e.g., sonata, symphony, opera)	3.05	0.82	2.83	0.83	3.39	0.68
3 Periods (e.g., Medieval, Renaissance)	3.19	0.85	3.04	0.90	3.38	0.76
4 World music (i.e., music from various cultures)	2.84	0.88	2.76	0.87	2.96	0.87
5 Jazz	2.76	0.85	2.70	0.85	2.81	0.80
6 American popular genres (e.g., folk, rock, gospel)	2.97	0.84	3.04	0.83	2.80	0.85
7 Style characteristics	3.77	0.50	3.73	0.55	3.84	0.41
8 Literature/repertoire	3.34	0.76	3.32	0.78	3.42	0.66
9 Composers (life and works)	2.88	0.79	2.86	0.79	2.86	0.79
10 Performers (past and present)	2.42	0.81	2.46	0.77	2.26	0.83
11 History of performance media	2.51	0.84	2.54	0.82	2.39	0.85
12 Interrelationships among musical genres, periods, and styles	2.52	0.90	2.40	0.88	2.70	0.85
13 Interdisciplinary relationships in the fine arts	2.59	0.96	2.51	0.92	2.70	1.00
14 Other interdisciplinary relationships	2.65	0.92	2.57	0.92	2.75	0.95
15 Sources of information on history and literature	2.90	0.92	2.84	0.92	3.00	0.90
THEORY/COMPOSITION						
17 Harmony	3.43	0.67	3.41	0.68	3.46	0.63
18 Sight singing (solfege)	3.30	0.86	3.16	0.90	3.57	0.69
19 Sight reading	3.63	0.62	3.61	0.66	3.72	0.52
20 Part writing	2.83	0.88	2.81	0.97	2.83	0.74
21 Melodic dictation	2.90	0.95	2.77	0.97	3.08	0.89
22 Harmonic dictation	2.69	0.99	2.60	1.02	2.79	0.92
23 Rhythmic dictation	3.23	0.82	3.17	0.86	3.29	0.79

Note: Table cells with mean ratings less than 2.50 are shaded. In addition, cells are shaded if 25% or more of the respondents rated the statement as being *not applicable.*

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		All Respondents N = 552		Teachers N = 310		College Faculty N = 157	
		Mean	SD	Mean	SD	Mean	SD
24	Tonality/atonality	2.99	0.87	2.96	0.92	2.99	0.80
25	Scale types and modes	3.07	0.89	3.09	0.93	3.08	0.86
26	Texture	3.08	0.79	3.07	0.81	3.11	0.73
27	Orchestration	2.83	0.95	2.81	1.00	2.88	0.91
28	Improvising	2.66	0.99	2.58	1.00	2.77	0.96
29	Arranging	2.88	0.90	2.83	0.96	2.98	0.83
30	Composing	2.14	0.92	2.08	0.98	2.24	0.81
31	Keyboard application	3.17	0.88	3.12	0.90	3.25	0.80
32	Form and analysis	2.86	0.85	2.77	0.84	2.97	0.83
33	Counterpoint	2.21	0.94	2.18	0.97	2.17	0.86
34	Score analysis	3.18	1.01	3.12	1.08	3.32	0.87
35	Notation systems (e.g., traditional Western, 20th century)	2.73	1.02	2.69	1.08	2.69	0.90
36	Expressive elements (e.g., dynamics, articulation, tempo, timbre)	3.75	0.54	3.76	0.56	3.76	0.48
37	Properties of sound and principles of sound generation	2.43	0.98	2.36	0.98	2.50	0.92
38	Physics of sound	2.05	1.00	2.04	1.00	2.03	0.95
39	Room acoustics	2.50	0.98	2.54	1.00	2.33	0.94
40	Anatomy of hearing	2.21	1.03	2.25	1.01	2.10	1.06
41	Sound characteristics of electronic instruments	2.09	0.98	1.99	0.99	2.15	0.91
42	Sound characteristics of acoustic instruments	2.31	1.04	2.29	1.06	2.31	1.02
43	Perception of musical sounds	3.37	0.79	3.39	0.78	3.27	0.86
44	Tuning systems (e.g., just, Pythagorean, equal-tempered)	1.91	1.04	1.98	1.04	1.69	0.99
PERFORMANCE MEDIA							
46	Proper fingering, positions, bowings, embouchure, rudiments, etc.	3.53	0.91	3.68	0.82	3.26	1.04
47	Proper maintenance for instruments	3.33	0.92	3.47	0.85	3.09	1.00
48	Mechanical action of instruments	2.93	0.97	3.14	0.91	2.58	1.01

		All Respondents N = 552		Teachers N = 310		College Faculty N = 157	
		Mean	SD	Mean	SD	Mean	SD
49	Instrumentation of standard instrumental ensembles	3.19	0.91	3.24	0.90	3.08	0.92
50	Electronic instruments	2.58	0.96	2.44	1.00	2.76	0.88
51	Voicings of standard choral ensembles	3.24	0.92	3.22	0.93	3.18	0.97
52	Vocal registers	3.33	0.92	3.25	0.96	3.35	0.89
53	Proper breathing and techniques for vocal production	3.59	0.76	3.54	0.79	3.59	0.78
54	Anatomy of vocal production	3.14	0.97	3.14	0.96	3.07	0.99
55	Vocal development: changes in the adolescent voice	3.40	0.96	3.28	1.04	3.48	0.91
56	The unchanged voice	3.27	1.01	3.15	1.07	3.38	0.96
PERFORMANCE							
58	Demonstrate competent musicianship performing standard repertoire	3.49	0.76	3.38	0.84	3.66	0.58
59	Demonstrate a competent level of performance (secondary)	2.97	0.90	2.95	0.94	3.05	0.82
60	Perform all major, minor, and chromatic scales and arpeggios	2.90	1.07	2.87	1.07	2.94	1.01
61	Sing major, minor, and chromatic scales and arpeggios	2.79	1.11	2.68	1.12	2.92	1.08
62	Conducting	3.57	0.67	3.46	0.74	3.71	0.52
63	Score reading	3.55	0.77	3.53	0.82	3.53	0.70
64	Keyboard skills	3.14	0.89	3.10	0.92	3.26	0.81
65	Guitar skills	1.94	1.06	1.74	1.02	2.28	1.04
66	Instrumental warm-ups and tuning	3.14	1.08	3.21	1.02	3.01	1.14
67	Vocal/choral warm-ups	3.32	0.94	3.32	0.96	3.25	0.96
68	Harmonize a melody on an instrument	2.87	1.00	2.73	1.02	3.17	0.85
69	Harmonize a melody vocally	2.80	1.04	2.77	1.02	2.82	1.07
70	Transpose a melody to a new key on an instrument	3.09	0.94	3.04	0.98	3.14	0.82
71	Appropriate stylistic interpretations	3.60	0.65	3.55	0.68	3.63	0.59
72	Improvisational techniques	2.60	0.97	2.49	0.96	2.75	0.90
73	Critical listening skills, including error detection	3.75	0.57	3.70	0.65	3.82	0.44

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		All Respondents N = 552		Teachers N = 310		College Faculty N = 157	
		Mean	SD	Mean	SD	Mean	SD
74	Aural identification of instruments	3.55	0.71	3.52	0.76	3.63	0.57
75	Aural identification of vocal types	3.30	0.89	3.28	0.92	3.31	0.87
76	Oral communication with an audience	3.39	0.76	3.38	0.77	3.37	0.74
77	Other communication with an audience (e.g., program notes)	3.22	0.80	3.20	0.80	3.16	0.78
78	Concert etiquette	3.45	0.84	3.52	0.77	3.26	0.91
MUSIC PEDAGOGY							
80	Reasons for including music in the curriculum	3.81	0.48	3.81	0.48	3.80	0.49
81	Reasons for teaching a particular skill or concept in music	3.72	0.52	3.75	0.50	3.68	0.56
82	A scope, sequence, and rationale for concepts and skills taught	3.63	0.62	3.65	0.61	3.61	0.65
83	Establishing outcomes for music instruction	3.66	0.57	3.65	0.57	3.69	0.61
84	Prerequisite knowledge, skills, and psychomotor abilities	3.42	0.76	3.39	0.79	3.48	0.74
85	Ability to detect errors in students musical performance	3.81	0.44	3.79	0.47	3.86	0.39
86	Ability to correct errors in students musical performance	3.86	0.40	3.85	0.42	3.88	0.35
87	Awareness of students motivations for studying music	3.34	0.74	3.37	0.76	3.31	0.71
88	Strategies for enhancing students motivations for studying music	3.63	0.59	3.64	0.58	3.60	0.60
89	Developing creativity and aesthetic expression through music	3.64	0.59	3.63	0.60	3.65	0.63
90	Strategies for use in the classroom	3.78	0.50	3.78	0.51	3.76	0.51
91	Strategies for use in large ensembles	3.72	0.56	3.77	0.49	3.63	0.69
92	Strategies for use in small ensembles/sectionals	3.63	0.64	3.65	0.61	3.57	0.73
93	Strategies for use in individualized instruction	3.55	0.74	3.58	0.75	3.49	0.77
94	Kodály	2.70	1.01	2.59	0.99	2.86	1.00
95	Suzuki	2.40	1.04	2.33	1.05	2.51	1.01
96	Orff	2.70	1.01	2.61	1.00	2.86	1.00
97	Dalcroze	2.46	1.00	2.39	0.96	2.56	1.01
98	Education Through Music (ETM)	2.48	1.04	2.57	1.02	2.30	1.05

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		All Respondents N = 552		Teachers N = 310		College Faculty N = 157	
		Mean	SD	Mean	SD	Mean	SD
99	Comprehensive Musicianship Program (CMP)	2.64	0.97	2.61	0.97	2.70	0.96
100	Eclectic (e.g., a combination of Kodály, Orff, Dalcroze)	3.02	1.04	2.91	1.05	3.18	1.02
101	Appropriate forms of representation	3.32	0.83	3.34	0.80	3.27	0.93
102	Curricular materials and resources	3.47	0.71	3.43	0.72	3.51	0.75
103	Selection of appropriate music for performance	3.73	0.52	3.74	0.53	3.72	0.51
104	MIDI	2.61	0.97	2.45	0.99	2.79	0.90
105	Computer	2.89	0.94	2.74	0.95	3.10	0.83
106	Synthesizer	2.69	0.94	2.56	0.94	2.82	0.90
107	Sequencer	2.36	0.99	2.22	1.00	2.49	0.94
108	Stereo systems	3.30	0.81	3.17	0.87	3.50	0.71
109	Compact discs	3.06	0.94	2.78	1.00	3.46	0.71
110	Interactive video	2.72	0.96	2.65	0.94	2.79	0.95
111	Electronic recording devices	3.19	0.84	3.08	0.88	3.29	0.78
112	Sound systems	3.21	0.85	3.14	0.89	3.26	0.80
113	Mainstreaming in the music setting	3.12	0.89	3.05	0.92	3.19	0.87
114	Evaluation strategies appropriate to assess student progress	3.60	0.60	3.59	0.59	3.59	0.65
115	Reporting students musical progress	3.49	0.66	3.46	0.68	3.47	0.66
116	Evaluation techniques to diagnose school's music curriculum	3.39	0.74	3.39	0.70	3.37	0.81
117	History of music education	2.34	0.95	2.30	0.98	2.31	0.89
118	Philosophy of music education	3.04	0.94	2.94	0.90	3.17	0.99
119	Sociology of music	2.49	0.91	2.45	0.91	2.49	0.92
120	Psychology of music	2.65	0.93	2.59	0.95	2.70	0.93
121	The impact of learning theories on music education	2.88	0.96	2.77	0.97	2.99	0.96
122	Musical growth and development	3.28	0.79	3.24	0.78	3.34	0.80
123	Accommodating diverse learning styles in music instruction	3.31	0.78	3.25	0.78	3.36	0.78

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		All Respondents N = 552		Teachers N = 310		College Faculty N = 157	
		Mean	SD	Mean	SD	Mean	SD
124	Trends in music education	3.05	0.82	3.03	0.81	3.05	0.81
125	Professional literature in music education	3.26	0.76	3.23	0.76	3.30	0.75
126	Professional and student organizations for music educators	3.24	0.79	3.19	0.79	3.31	0.77
127	Professional ethics specific to music (e.g., copyright laws)	3.34	0.72	3.27	0.74	3.38	0.71
128	External influences on the music curriculum (e.g., boosters)	3.11	0.86	3.10	0.88	3.01	0.80
129	Career opportunities in music	3.04	0.85	3.10	0.83	2.81	0.88
130	Instruction in art disciplines outside of music	2.50	0.92	2.52	0.92	2.41	0.93

Appendix F

Importance Ratings for Demographic Subgroups

		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
MUSIC HISTORY AND LITERATURE											
1	Chronology	2.77	2.80	2.80	2.79	2.92	2.83	2.82	2.56	2.80	2.62
2	Genres (e.g., sonata, symphony, opera)	3.07	3.03	3.08	3.05	3.18	3.04	3.05	2.92	2.89	2.83
3	Periods (e.g., Medieval, Renaissance)	3.13	3.25	3.22	3.19	3.23	3.20	3.22	3.08	3.07	3.04
4	World music (i.e., music from various cultures)	3.07	2.62	3.10	2.82	3.04	2.74	2.81	2.82	2.78	2.76
5	Jazz	2.68	2.85	2.88	2.74	2.90	2.83	2.57	2.73	2.73	2.70
6	American popular genres (e.g., folk, rock, gospel)	3.12	2.83	3.14	2.96	3.18	2.85	2.90	3.00	3.09	3.04
7	Style characteristics	3.79	3.77	3.81	3.77	3.79	3.76	3.79	3.77	3.65	3.74
8	Literature/repertoire	3.27	3.43	3.38	3.35	3.31	3.36	3.40	3.32	3.39	3.31
9	Composers (life and works)	2.92	2.82	2.96	2.88	2.92	2.92	2.94	2.70	2.98	2.84
10	Performers (past and present)	2.53	2.29	2.60	2.39	2.45	2.42	2.46	2.31	2.59	2.46
11	History of performance media	2.55	2.45	2.76	2.49	2.59	2.42	2.60	2.41	2.61	2.52
12	Interrelationships among musical genres, periods, and styles	2.48	2.56	2.74	2.51	2.60	2.49	2.56	2.43	2.35	2.41
13	Interdisciplinary relationships in the fine arts	2.68	2.49	2.70	2.59	2.75	2.58	2.48	2.53	2.33	2.55
14	Other interdisciplinary relationships	2.77	2.54	2.71	2.66	2.78	2.71	2.50	2.64	2.57	2.58
15	Sources of information on history and literature	2.92	2.88	2.90	2.92	2.83	2.90	2.91	2.95	2.76	2.86
THEORY/COMPOSITION											
17	Harmony	3.37	3.52	3.52	3.42	3.50	3.38	3.52	3.34	3.39	3.41
18	Sight singing (solfege)	3.35	3.25	3.17	3.31	3.56	3.17	3.32	3.18	3.24	3.14
19	Sight reading	3.62	3.63	3.62	3.63	3.59	3.61	3.68	3.60	3.67	3.59
20	Part writing	2.76	2.90	2.98	2.80	2.86	2.71	2.87	2.88	2.72	2.82
21	Melodic dictation	2.87	2.94	3.08	2.88	3.03	2.73	3.00	2.85	2.68	2.78

Note: F = Female (N=278) M = Male (N=262); POC = People of Color (N=52); W = White (N=474); NE = Northeast (N=125); C = Central (N=146); S = South (N=135); FW = Far West (N=134); 0-5 = 0 to 5 years teaching experience (N=47); 6+ = 6 or more years teaching experience (N=262). Table cells with mean ratings less than 2.50 are shaded. In addition, cells are shaded if 25% or more of the respondents rated the statement as being *not applicable*.

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		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
22	Harmonic dictation	2.59	2.81	2.90	2.66	2.77	2.53	2.81	2.67	2.52	2.61
23	Rhythmic dictation	3.18	3.29	3.35	3.21	3.24	3.17	3.30	3.21	3.18	3.16
24	Tonality/atonality	2.95	3.04	3.31	2.96	3.11	2.85	3.16	2.86	2.70	3.01
25	Scale types and modes	3.07	3.09	3.42	3.03	3.11	2.90	3.23	3.08	3.00	3.11
26	Texture	3.07	3.11	3.33	3.06	3.14	3.00	3.22	2.99	3.02	3.08
27	Orchestration	2.73	2.94	2.82	2.84	2.96	2.73	2.84	2.80	2.76	2.83
28	Improvising	2.68	2.66	2.94	2.63	2.80	2.54	2.55	2.76	2.62	2.57
29	Arranging	2.83	2.93	3.04	2.86	2.92	2.70	2.97	2.93	2.70	2.85
30	Composing	2.16	2.12	2.44	2.12	2.24	2.03	2.30	2.08	2.07	2.07
31	Keyboard application	3.32	3.01	3.40	3.15	3.28	3.15	3.13	3.11	3.02	3.14
32	Form and analysis	2.80	2.90	2.92	2.85	2.94	2.83	2.83	2.80	2.78	2.77
33	Counterpoint	2.12	2.29	2.51	2.17	2.28	2.05	2.31	2.17	2.24	2.17
34	Score analysis	2.86	3.49	3.36	3.17	3.06	3.17	3.28	3.17	3.04	3.14
35	Notation systems (e.g., traditional Western, 20th century)	2.63	2.83	3.06	2.70	2.81	2.66	2.73	2.74	2.73	2.69
36	Expressive elements (e.g., dynamics, articulation, tempo, timbre)	3.77	3.73	3.87	3.73	3.76	3.75	3.73	3.76	3.66	3.77
37	Properties of sound and principles of sound generation	2.33	2.54	2.69	2.40	2.51	2.19	2.56	2.46	2.30	2.37
38	Physics of sound	1.99	2.15	2.25	2.02	2.12	1.81	2.16	2.11	1.91	2.07
39	Room acoustics	2.49	2.50	2.67	2.47	2.39	2.43	2.63	2.53	2.67	2.51
40	Anatomy of hearing	2.23	2.20	2.68	2.16	2.17	2.15	2.35	2.18	2.25	2.24
41	Sound characteristics of electronic instruments	1.92	2.25	2.29	2.06	2.22	1.91	2.08	2.16	1.93	2.00
42	Sound characteristics of acoustic instruments	2.10	2.54	2.58	2.28	2.35	2.15	2.37	2.42	2.34	2.29
43	Perception of musical sounds	3.39	3.36	3.58	3.35	3.39	3.33	3.42	3.36	3.30	3.41
44	Tuning systems (e.g., just, Pythagorean, equal-tempered)	1.82	2.00	2.00	1.90	1.75	1.79	2.14	1.94	2.02	1.9

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		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
PERFORMANCE MEDIA											
46	Proper fingering, positions, bowings, embouchure, rudiments, etc.	3.33	3.72	3.51	3.53	3.50	3.54	3.47	3.61	3.63	3.69
47	Proper maintenance for instruments	3.24	3.41	3.53	3.31	3.32	3.27	3.29	3.42	3.53	3.46
48	Mechanical action of instruments	2.89	2.96	3.18	2.90	2.95	2.94	2.87	2.94	3.00	3.16
49	Instrumentation of standard instrumental ensembles	3.09	3.29	3.34	3.18	3.28	3.16	3.13	3.20	3.30	3.23
50	Electronic instruments	2.54	2.61	2.78	2.56	2.73	2.49	2.55	2.55	2.38	2.75
51	Voicings of standard choral ensembles	3.26	3.22	3.49	3.21	3.39	3.19	3.29	3.09	3.18	3.22
52	Vocal registers	3.37	3.29	3.49	3.32	3.53	3.31	3.36	3.13	3.28	3.24
53	Proper breathing and techniques for vocal production	3.67	3.50	3.61	3.58	3.68	3.64	3.52	3.51	3.68	3.51
54	Anatomy of vocal production	3.24	3.02	3.27	3.13	3.25	3.19	3.07	3.04	3.27	3.11
55	Vocal development: changes in the adolescent voice	3.50	3.29	3.58	3.38	3.61	3.40	3.32	3.28	3.28	3.28
56	The unchanged voice	3.42	3.08	3.43	3.25	3.35	3.34	3.26	3.10	3.00	3.17
PERFORMANCE											
58	Demonstrate competent musicianship performing standard repertoire	3.48	3.51	3.61	3.48	3.58	3.44	3.56	3.38	3.45	3.37
59	Demonstrate a competent level of performance (secondary)	2.99	2.94	3.13	2.96	2.97	2.92	3.14	2.83	2.84	2.96
60	Perform all major, minor, and chromatic scales and arpeggios	2.83	3.00	3.04	2.89	2.97	2.74	3.17	2.78	3.04	2.85
61	Sing major, minor, and chromatic scales and arpeggios	2.76	2.84	3.02	2.76	2.82	2.73	2.95	2.69	2.60	2.70
62	Conducting	3.43	3.72	3.58	3.57	3.57	3.53	3.66	3.52	3.41	3.47
63	Score reading	3.39	3.72	3.64	3.54	3.53	3.54	3.64	3.47	3.32	3.57
64	Keyboard skills	3.38	2.89	3.35	3.13	3.29	3.15	3.01	3.12	3.13	3.10
65	Guitar skills	2.14	1.73	2.02	1.92	2.19	1.74	1.84	2.02	1.78	1.73
66	Instrumental warm-ups and tuning	3.00	3.29	3.20	3.14	3.29	3.05	3.06	3.21	3.28	3.21
67	Vocal/choral warm-ups	3.44	3.17	3.51	3.28	3.50	3.32	3.29	3.16	3.32	3.32
68	Harmonize a melody on an instrument	3.03	2.70	3.21	2.84	3.10	2.65	2.94	2.81	2.70	2.73
69	Harmonize a melody vocally	2.98	2.60	3.11	2.76	3.05	2.66	2.87	2.64	2.86	2.75

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		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
70	Transpose a melody to a new key on an instrument	3.13	3.03	3.22	3.07	3.14	2.96	3.17	3.07	2.98	3.05
71	Appropriate stylistic interpretations	3.56	3.64	3.62	3.59	3.57	3.58	3.62	3.61	3.47	3.57
72	Improvisational techniques	2.58	2.63	2.84	2.57	2.78	2.49	2.47	2.69	2.62	2.47
73	Critical listening skills, including error detection	3.70	3.82	3.69	3.76	3.82	3.70	3.73	3.77	3.68	3.70
74	Aural identification of instruments	3.54	3.57	3.52	3.57	3.66	3.51	3.58	3.48	3.50	3.53
75	Aural identification of vocal types	3.42	3.15	3.57	3.29	3.46	3.21	3.38	3.16	3.16	3.31
76	Oral communication with an audience	3.56	3.22	3.45	3.40	3.44	3.29	3.48	3.37	3.36	3.38
77	Other communication with an audience (e.g., program notes)	3.29	3.14	3.40	3.21	3.21	3.18	3.33	3.14	3.15	3.21
78	Concert etiquette	3.57	3.31	3.74	3.42	3.36	3.49	3.48	3.43	3.57	3.51
MUSIC PEDAGOGY											
80	Reasons for including music in the curriculum	3.87	3.74	3.82	3.81	3.83	3.83	3.77	3.80	3.89	3.80
81	Reasons for teaching a particular skill or concept in music	3.83	3.60	3.88	3.71	3.76	3.68	3.74	3.69	3.70	3.76
82	A scope, sequence, and rationale for concepts and skills taught	3.72	3.53	3.67	3.63	3.65	3.54	3.67	3.65	3.57	3.67
83	Establishing outcomes for music instruction	3.75	3.57	3.72	3.66	3.74	3.61	3.69	3.61	3.52	3.68
84	Prerequisite knowledge, skills, and psychomotor abilities	3.52	3.32	3.54	3.42	3.43	3.32	3.59	3.35	3.40	3.38
85	Ability to detect errors in students musical performance	3.80	3.83	3.84	3.81	3.87	3.78	3.84	3.76	3.70	3.80
86	Ability to correct errors in students musical performance	3.82	3.89	3.88	3.86	3.90	3.84	3.84	3.83	3.67	3.88
87	Awareness of students motivations for studying music	3.34	3.34	3.29	3.35	3.35	3.32	3.35	3.33	3.30	3.39
88	Strategies for enhancing students motivations for studying music	3.66	3.60	3.54	3.64	3.67	3.59	3.64	3.62	3.67	3.64
89	Developing creativity and aesthetic expression through music	3.70	3.58	3.66	3.64	3.67	3.62	3.70	3.58	3.59	3.64
90	Strategies for use in the classroom	3.87	3.67	3.84	3.77	3.80	3.81	3.74	3.75	3.73	3.78
91	Strategies for use in large ensembles	3.68	3.77	3.73	3.72	3.77	3.70	3.63	3.80	3.74	3.77
92	Strategies for use in small ensembles/sectionals	3.56	3.71	3.73	3.62	3.69	3.62	3.65	3.57	3.61	3.66
93	Strategies for use in individualized instruction	3.52	3.57	3.66	3.54	3.55	3.56	3.61	3.45	3.58	3.59
94	Kodály	2.89	2.48	2.83	2.67	2.76	2.80	2.71	2.49	2.78	2.55

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		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
95	Suzuki	2.50	2.27	2.52	2.38	2.49	2.33	2.44	2.29	2.62	2.21
96	Orff	2.95	2.40	2.78	2.69	2.76	2.79	2.59	2.61	2.64	2.59
97	Dalcroze	2.71	2.17	2.69	2.44	2.62	2.51	2.40	2.27	2.32	2.40
98	Education Through Music (ETM)	2.66	2.26	2.86	2.44	2.62	2.47	2.49	2.32	2.76	2.54
99	Comprehensive Musicianship Program (CMP)	2.73	2.55	2.98	2.62	2.88	2.56	2.64	2.49	2.59	2.62
100	Eclectic (e.g., a combination of Kodály, Orff, Dalcroze)	3.19	2.81	3.13	3.01	3.15	3.04	2.89	2.98	2.91	2.90
101	Appropriate forms of representation	3.51	3.09	3.53	3.29	3.35	3.28	3.26	3.33	3.41	3.33
102	Curricular materials and resources	3.63	3.29	3.57	3.46	3.46	3.48	3.48	3.42	3.38	3.44
103	Selection of appropriate music for performance	3.79	3.67	3.71	3.74	3.74	3.75	3.81	3.63	3.80	3.73
104	MIDI	2.51	2.72	2.85	2.59	2.75	2.58	2.56	2.54	2.34	2.47
105	Computer	2.81	2.97	3.00	2.88	3.00	2.80	2.89	2.84	2.61	2.76
106	Synthesizer	2.61	2.76	2.85	2.67	2.87	2.57	2.61	2.69	2.51	2.56
107	Sequencer	2.24	2.49	2.60	2.34	2.50	2.25	2.35	2.35	2.00	2.21
108	Stereo systems	3.34	3.27	3.37	3.28	3.42	3.22	3.33	3.24	2.91	3.22
109	Compact discs	3.00	3.12	3.10	3.05	3.26	2.91	3.12	2.94	2.46	2.83
110	Interactive video	2.75	2.68	2.92	2.69	2.83	2.55	2.79	2.71	2.53	2.67
111	Electronic recording devices	3.17	3.20	3.27	3.16	3.13	3.10	3.24	3.26	2.96	3.10
112	Sound systems	3.22	3.19	3.08	3.21	3.15	3.15	3.29	3.24	3.07	3.16
113	Mainstreaming in the music setting	3.35	2.88	3.24	3.11	3.17	3.21	3.13	2.98	3.14	3.03
114	Evaluation strategies appropriate to assess student progress	3.66	3.56	3.83	3.58	3.60	3.55	3.67	3.59	3.60	3.59
115	Reporting students musical progress	3.55	3.44	3.69	3.46	3.51	3.44	3.58	3.45	3.51	3.45
116	Evaluation techniques to diagnose school's music curriculum	3.45	3.32	3.58	3.37	3.41	3.31	3.50	3.35	3.45	3.37
117	History of music education	2.44	2.22	2.85	2.28	2.36	2.31	2.43	2.23	2.43	2.23
118	Philosophy of music education	3.10	2.97	3.33	3.01	3.10	2.95	3.10	2.99	3.04	2.93
119	Sociology of music	2.60	2.36	3.12	2.43	2.60	2.36	2.51	2.46	2.36	2.41

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		Sex		Race/Ethnicity		Geographic Region				Teaching Experience	
		F	M	POC	W	NE	C	S	FW	0-5	6+
120	Psychology of music	2.72	2.58	3.15	2.61	2.83	2.55	2.66	2.56	2.53	2.60
121	The impact of learning theories on music education	2.98	2.76	3.15	2.86	3.05	2.74	2.91	2.81	2.70	2.79
122	Musical growth and development	3.39	3.14	3.50	3.26	3.35	3.26	3.29	3.20	3.28	3.23
123	Accommodating diverse learning styles in music instruction	3.42	3.20	3.60	3.28	3.36	3.24	3.36	3.29	3.15	3.27
124	Trends in music education	3.15	2.95	3.33	3.03	3.10	3.04	3.04	3.02	3.02	3.02
125	Professional literature in music education	3.34	3.17	3.38	3.26	3.29	3.29	3.24	3.19	3.36	3.20
126	Professional and student organizations for music educators	3.36	3.13	3.50	3.23	3.31	3.30	3.29	3.06	3.21	3.18
127	Professional ethics specific to music (e.g., copyright laws)	3.43	3.26	3.46	3.32	3.26	3.34	3.48	3.29	3.15	3.29
128	External influences on the music curriculum (e.g., boosters)	3.10	3.14	3.12	3.11	2.98	3.11	3.29	3.07	3.19	3.08
129	Career opportunities in music	3.08	3.00	3.25	3.01	3.07	3.02	3.11	2.97	3.21	3.07
130	Instruction in art disciplines outside of music	2.63	2.38	2.65	2.49	2.57	2.43	2.58	2.44	2.45	2.53

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Appendix G

Importance Ratings by Primary Area of Teaching Responsibility

		Primary Area of Teaching Responsibility						
		C	BW	OS	EGC	SGM	MA	NR
MUSIC HISTORY AND LITERATURE								
1	Chronology	2.90	2.67	2.90	2.58	3.25	3.09	2.89
2	Genres (e.g., sonata, symphony, opera)	2.92	2.94	3.23	2.92	3.39	3.38	3.21
3	Periods (e.g., Medieval, Renaissance)	3.55	2.98	3.37	2.93	3.43	3.47	3.35
4	World music (i.e., music from various cultures)	2.68	2.46	2.42	3.37	2.93	3.00	2.89
5	Jazz	2.47	3.10	3.24	2.74	2.75	2.88	2.78
6	American popular genres (e.g., folk, rock, gospel)	2.97	2.83	3.37	3.33	3.07	2.91	2.95
7	Style characteristics	3.90	3.79	3.71	3.74	3.86	3.75	3.70
8	Literature/repertoire	3.75	3.52	3.58	2.93	3.04	3.44	3.31
9	Composers (life and works)	3.01	2.69	3.06	2.89	2.96	2.81	2.92
10	Performers (past and present)	2.43	2.27	2.42	2.55	2.36	2.31	2.41
11	History of performance media	2.56	2.47	2.90	2.61	2.41	2.34	2.60
12	Interrelationships among musical genres, periods, and styles	2.59	2.48	2.58	2.35	2.79	2.63	2.67
13	Interdisciplinary relationships in the fine arts	2.56	2.25	2.44	2.80	2.93	2.61	2.77
14	Other interdisciplinary relationships	2.71	2.29	2.33	2.89	2.89	2.91	2.82
15	Sources of information on history and literature	3.09	2.85	3.02	2.70	2.96	3.09	2.99
THEORY/COMPOSITION								
17	Harmony	3.61	3.55	3.33	3.27	3.56	3.42	3.40
18	Sight singing (solfege)	3.52	3.15	3.02	3.46	3.25	3.47	3.16
19	Sight reading	3.77	3.69	3.69	3.49	3.61	3.69	3.58
20	Part writing	2.90	2.97	3.00	2.48	2.82	3.09	2.93
21	Melodic dictation	2.86	2.88	2.92	2.73	3.04	3.19	3.10

C=Choral (Grades 7 -12) (N=81); BW=Band and Wind (Grades 4 - 12) (N=136); OS=Orchestra and String (Grades 4 - 12) (N=52); EGC = Elementary General/Choral Music (Grades K - 6) (N=146); SGM = Secondary General Music (Theory, literature, appreciation, keyboard; Grades 7 - 12) (N=30); MA = Multiple Areas (N=32); NR = No Response (N=75). Table cells with mean ratings less than 2.50 are shaded. In addition, cells are shaded if 25% or more of the respondents rated the statement as being *not applicable*.

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		Primary Area of Teaching Responsibility						
		C	BW	OS	EGC	SGM	MA	NR
22	Harmonic dictation	2.76	2.81	2.64	2.83	2.82	3.06	2.95
23	Rhythmic dictation	3.12	3.26	3.24	3.16	3.18	3.28	3.41
24	Tonality/atonality	3.19	3.02	3.12	2.74	3.07	3.09	3.04
25	Scale types and modes	2.86	3.31	3.56	2.78	3.18	3.03	3.07
26	Texture	3.18	3.18	3.06	2.97	3.30	3.00	2.99
27	Orchestration	2.29	3.39	3.35	2.32	2.75	3.13	2.86
28	Improvising	2.21	2.68	2.27	2.89	2.70	3.06	2.74
29	Arranging	2.78	3.10	2.96	2.61	2.87	3.06	2.99
30	Composing	1.94	2.04	2.18	2.23	2.27	2.41	2.21
31	Keyboard application	3.46	2.68	2.96	3.37	3.57	3.52	3.21
32	Form and analysis	3.01	2.84	2.92	2.65	3.20	3.03	2.86
33	Counterpoint	2.48	2.27	2.31	1.82	2.20	2.47	2.33
34	Score analysis	3.33	3.74	3.29	2.29	3.17	3.63	3.37
35	Notation systems (e.g., traditional Western, 20th century)	2.69	2.85	2.80	2.56	2.83	2.56	2.89
36	Expressive elements (e.g., dynamics, articulation, tempo, timbre)	3.84	3.80	3.77	3.64	3.60	3.61	3.85
37	Properties of sound and principles of sound generation	2.30	2.46	2.36	2.32	2.63	2.61	2.60
38	Physics of sound	1.96	2.20	2.32	1.74	2.00	2.00	2.30
39	Room acoustics	2.82	2.57	2.61	2.11	2.43	2.50	2.69
40	Anatomy of hearing	2.48	2.16	2.06	2.14	1.97	2.16	2.38
41	Sound characteristics of electronic instruments	2.04	2.21	1.73	1.80	2.33	2.45	2.42
42	Sound characteristics of acoustic instruments	2.07	2.71	2.44	1.79	2.37	2.53	2.64
43	Perception of musical sounds	3.48	3.35	3.37	3.25	3.30	3.47	3.49
44	Tuning systems (e.g., just, Pythagorean, equal-tempered)	2.04	2.23	2.43	1.42	1.83	1.77	1.81

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		Primary Area of Teaching Responsibility						
		C	BW	OS	EGC	SGM	MA	NR
PERFORMANCE MEDIA								
46	Proper fingering, positions, bowings, embouchure, rudiments, etc.	3.29	3.90	3.98	2.90	3.52	3.63	3.72
47	Proper maintenance for instruments	2.69	3.70	3.88	2.79	3.16	3.57	3.54
48	Mechanical action of instruments	2.31	3.29	3.60	2.39	2.67	3.13	3.15
49	Instrumentation of standard instrumental ensembles	2.63	3.56	3.65	2.72	2.97	3.61	3.35
50	Electronic instruments	2.27	2.67	2.18	2.51	2.83	3.29	2.77
51	Voicings of standard choral ensembles	3.86	2.72	2.71	3.15	3.50	3.66	3.39
52	Vocal registers	3.89	2.76	2.60	3.45	3.57	3.68	3.37
53	Proper breathing and techniques for vocal production	3.96	3.15	2.79	3.77	3.63	3.83	3.66
54	Anatomy of vocal production	3.59	2.57	2.50	3.31	3.17	3.40	3.22
55	Vocal development: changes in the adolescent voice	3.80	2.70	2.48	3.66	3.50	3.67	3.61
56	The unchanged voice	3.70	2.50	2.41	3.63	3.24	3.54	3.33
PERFORMANCE								
58	Demonstrate competent musicianship performing standard repertoire	3.49	3.45	3.53	3.33	3.76	3.77	3.63
59	Demonstrate a competent level of performance (secondary)	2.87	3.12	3.00	2.80	2.96	3.10	3.07
60	Perform all major, minor, and chromatic scales and arpeggios	2.62	3.22	3.18	2.49	3.11	3.17	2.96
61	Sing major, minor, and chromatic scales and arpeggios	2.98	2.76	2.56	2.61	3.24	3.03	2.81
62	Conducting	3.73	3.77	3.47	3.27	3.45	3.77	3.64
63	Score reading	3.69	3.86	3.67	3.04	3.38	3.81	3.67
64	Keyboard skills	3.38	2.56	2.98	3.45	3.55	3.45	3.15
65	Guitar skills	1.61	1.43	1.32	2.53	2.50	2.35	2.01
66	Instrumental warm-ups and tuning	2.38	3.70	3.50	2.51	2.63	3.42	3.39
67	Vocal/choral warm-ups	3.79	2.80	2.57	3.47	3.21	3.60	3.41
68	Harmonize a melody on an instrument	2.74	2.43	2.69	3.19	3.38	3.23	2.94
69	Harmonize a melody vocally	3.09	2.26	2.23	3.04	3.15	3.03	2.87
70	Transpose a melody to a new key on an instrument	2.83	3.18	2.80	3.11	3.29	3.26	3.17

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		Primary Area of Teaching Responsibility						
		C	BW	OS	EGC	SGM	MA	NR
71	Appropriate stylistic interpretations	3.72	3.73	3.75	3.27	3.76	3.77	3.61
72	Improvisational techniques	2.20	2.68	2.16	2.70	2.76	3.10	2.74
73	Critical listening skills, including error detection	3.79	3.82	3.92	3.53	3.72	3.87	3.88
74	Aural identification of instruments	3.06	3.75	3.86	3.54	3.79	3.30	3.49
75	Aural identification of vocal types	3.60	2.78	2.77	3.50	3.66	3.41	3.33
76	Oral communication with an audience	3.38	3.19	3.43	3.57	3.34	3.45	3.38
77	Other communication with an audience (e.g., program notes)	3.15	3.18	3.20	3.27	3.07	3.32	3.28
78	Concert etiquette	3.46	3.40	3.82	3.49	3.32	3.26	3.29
MUSIC PEDAGOGY								
80	Reasons for including music in the curriculum	3.79	3.76	3.76	3.89	3.83	3.81	3.75
81	Reasons for teaching a particular skill or concept in music	3.67	3.63	3.73	3.83	3.73	3.71	3.69
82	A scope, sequence, and rationale for concepts and skills taught	3.59	3.50	3.69	3.78	3.40	3.74	3.61
83	Establishing outcomes for music instruction	3.61	3.53	3.73	3.82	3.53	3.69	3.64
84	Prerequisite knowledge, skills, and psychomotor abilities	3.22	3.31	3.49	3.61	3.41	3.47	3.39
85	Ability to detect errors in students musical performance	3.83	3.87	3.92	3.72	3.93	3.74	3.80
86	Ability to correct errors in students musical performance	3.91	3.93	3.98	3.75	3.90	3.75	3.83
87	Awareness of students motivations for studying music	3.35	3.39	3.49	3.30	3.07	3.34	3.34
88	Strategies for enhancing students motivations for studying music	3.68	3.64	3.71	3.61	3.47	3.69	3.62
89	Developing creativity and aesthetic expression through music	3.73	3.56	3.61	3.72	3.53	3.69	3.61
90	Strategies for use in the classroom	3.68	3.62	3.84	3.96	3.76	3.78	3.72
91	Strategies for use in large ensembles	3.83	3.86	3.80	3.55	3.32	3.81	3.76
92	Strategies for use in small ensembles/sectionals	3.77	3.81	3.82	3.35	3.15	3.72	3.71
93	Strategies for use in individualized instruction	3.60	3.74	3.75	3.26	3.38	3.47	3.66
94	Kodály	2.56	2.17	2.38	3.19	2.32	2.63	2.98
95	Suzuki	1.84	1.78	3.10	2.45	1.92	2.47	2.75
96	Orff	2.50	2.41	2.53	3.30	2.30	2.78	2.92

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		Primary Area of Teaching Responsibility						
		C	BW	OS	EGC	SGM	MA	NR
97	Dalcroze	[illegible]	[illegible]	[illegible]	2.90	[illegible]	[illegible]	2.70
98	Education Through Music (ETM)	[illegible]	[illegible]	[illegible]	2.81	[illegible]	[illegible]	2.65
99	Comprehensive Musicianship Program (CMP)	[illegible]	2.58	[illegible]	2.81	2.93	2.50	2.71
100	Eclectic (e.g., a combination of Kodály, Orff, Dalcroze)	2.76	[illegible]	2.53	3.46	3.48	3.19	3.23
101	Appropriate forms of representation	3.38	3.03	3.33	3.52	3.33	3.29	3.30
102	Curricular materials and resources	3.47	3.25	3.46	3.65	3.57	3.53	3.42
103	Selection of appropriate music for performance	3.89	3.74	3.88	3.73	3.40	3.72	3.61
104	MIDI	2.54	2.76	[illegible]	[illegible]	2.93	2.94	2.69
105	Computer	2.74	3.02	2.72	2.71	3.14	3.19	3.01
106	Synthesizer	2.61	2.81	[illegible]	2.60	2.96	3.00	2.81
107	Sequencer	[illegible]	2.59	[illegible]	[illegible]	2.71	2.69	[illegible]
108	Stereo systems	3.17	3.28	3.10	3.38	3.45	3.34	3.41
109	Compact discs	2.90	2.99	2.80	3.08	3.38	3.34	3.25
110	Interactive video	2.62	2.71	2.63	2.63	2.97	2.75	2.97
111	Electronic recording devices	3.17	3.27	3.02	3.06	3.48	3.25	3.27
112	Sound systems	3.34	3.29	2.98	3.12	3.21	3.28	3.22
113	Mainstreaming in the music setting	3.01	2.88	2.63	3.45	3.08	3.39	3.23
114	Evaluation strategies appropriate to assess student progress	3.60	3.56	3.60	3.59	3.67	3.69	3.62
115	Reporting students musical progress	3.42	3.46	3.63	3.50	3.27	3.65	3.53
116	Evaluation techniques to diagnose school's music curriculum	3.35	3.34	3.38	3.42	3.23	3.50	3.49
117	History of music education	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.56
118	Philosophy of music education	3.02	2.92	2.69	3.21	2.97	3.28	3.10
119	Sociology of music	[illegible]	[illegible]	[illegible]	22.63	[illegible]	2.72	2.68
120	Psychology of music	2.54	[illegible]	2.54	2.74	2.70	2.97	2.89
121	The impact of learning theories on music education	2.75	2.65	2.67	3.07	2.87	3.09	3.13
122	Musical growth and development	3.19	3.06	3.23	3.49	3.24	3.41	3.34

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		Primary Area of Teaching Responsibility						
		C	BW	OS	EGC	SGM	MA	NR
123	Accommodating diverse learning styles in music instruction	3.10	3.21	3.33	3.47	3.30	3.31	3.37
124	Trends in music education	2.84	2.94	2.83	3.26	2.97	3.19	3.23
125	Professional literature in music education	3.30	3.19	3.23	3.21	3.37	3.23	3.40
126	Professional and student organizations for music educators	3.28	3.12	3.31	3.29	3.27	3.19	3.32
127	Professional ethics specific to music (e.g., copyright laws)	3.40	3.22	3.27	3.42	3.31	3.38	3.41
128	External influences on the music curriculum (e.g., boosters)	3.17	3.25	3.12	2.91	2.93	3.13	3.24
129	Career opportunities in music	3.12	3.03	3.04	2.92	3.00	3.06	3.22
130	Instruction in art disciplines outside of music	2.41	2.32	2.33	2.66	2.50	2.61	2.74

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